

The National

June-July, 1978

Future Farmer

Owned and Published by the Future Farmers of America



THE NEW RELIABLES!

Only IH offers a complete two-year warranty.

IH® Series 86 tractors prove so reliable that every part is warranted for two full years!

This new IH tractor warranty is—by far—the strongest and most complete ever offered.

What more powerful proof can you get that the IH Series 86 tractors are the most reliable you can buy!

Your IH warranty covers every part on your new Series 86 tractor—and IH 4-wheel-drive—for two full years or 1500 hours of operation, whichever comes first!

The only exceptions are tires and radio, and they are warranted by their manufacturers.

What makes IH so reliable?

The Series 86 was the most successful new tractor line

in years, and we've kept on working to make these winners even better.

For example, our exclusive Torque Amplifier—which gives you on-the-go speed changes—now comes with a new heavy-duty clutch and greatly improved lubrication system.

Even the reliability of the hydraulic system has been improved—with an at-the-factory, 30-minute filtered flush so that both the system and the fluid are absolutely clean and free of particles.

Our aim was to take IH power and comfort and give it even greater simplicity... efficiency... and reliability. And the unmatched IH warranty proves we've done it.

Look over the IH warranty... and pick the model you need.

The tractor shown here is the IH 1486 with 145.7 high-torque horsepower. And there are five others to choose from—86 to 161.5 pto horsepower.

Stop by your IH Dealer soon. Check out the warranty. And check out the tractors that earned the nickname The New Reliables. Once you do you'll agree... *Power never came with so much comfort—and reliability.*



**SEE THE
UNMATCHABLE
TRACTOR WARRANTY
AT YOUR IH DEALER.**



**INTERNATIONAL
AGRICULTURAL
EQUIPMENT**



MAGAZINE STAFF

Editor, Willson W. Carnes; Associate Editors, John M. Pitzer, K. Elliott Nowels; Field Editor, Gary Bye; Editorial Assistants, Jo Colley, Mildred Bryan; Advertising Manager, Glenn D. Luedke; Regional Advertising Managers, Carlton Gabel, Tom Davis; Advertising Assistant, Laurie Welch; Promotion Assistant, Craig Osborne; Circulation Fulfillment Manager, Adriana L. Stagg; Assistants, Carolyn Roy, Diana Seeley, Ernestine Trieter.

NATIONAL OFFICERS

National President, J. Ken Johnson, 6061 Center Highway, Nacogdoches, Texas 75961; National Secretary, Howard Morrison, Box 464, Gilbert, Arizona 85234; National Vice Presidents, Peg Armstrong, RR 1, Newhall, Iowa 52315; Robin Hovis, 1746 South Co. Road 26, Helena, Ohio 43435; Christopher Hardee, Box 505, Chiefland, Florida 32626; Dee Sokolosky, Box 8, Owasso, Oklahoma 74055.

BOARD OF DIRECTORS

Chairman of the Board of Directors, National Advisor H. N. Hunsicker; Members of the Board, John W. Bunten, C. M. Brewer, Paul M. Day, H. E. Edwards, Martin L. Mitchell, Byron F. Rawls, G. C. Scoggins, J. W. Warren.

NATIONAL STAFF

Executive Secretary, Coleman Harris; National Treasurer, J. M. Campbell; Administrative Director, Edward J. Hawkins; Manager of International Programs, Lennie Gamage; FFA Program Specialist (Awards), Robert Seefeldt; FFA Program Specialist (Contests), Ted Amick; Director of Information, Daniel Reutewee; FFA Program Specialist (Leadership), Tony Hoyt; Manager of FFA Supply Service, Harry J. Andrews; Chief Accountant, George Verragt; Administrative Secretary FFA Alumni Association, Robert W. Cox.

ADVERTISING OFFICES

The National FUTURE FARMER

P. O. Box 15130
 Alexandria, Virginia 22309 703-360-3500
 Robert C. Whaley
 4605 Fulton, Suite No. 4
 Sherman Oaks, California 91423 213-463-7157
 Robert Flahive Company
 22 Battery Street
 San Francisco, California 94111 415-781-4583



The National FUTURE FARMER, member of Audit Bureau of Circulations.

TO CHANGE YOUR ADDRESS OR ORDER A SUBSCRIPTION

Please use this form.

TO SUBSCRIBE: check the term below and fill in your name and address.

- ☐ 3 years \$3
☐ 2 years \$2
☐ 1 year \$1

Foreign subscriptions, add 50¢ a year extra for postage.

ATTACH CHECK
 AND MAIL TO:
 The National
 FUTURE FARMER
 P.O. Box 15130
 Alexandria,
 Virginia 22309

Name (please print)

Address (new, if for change of address)

City State Zip

ATTACH LABEL HERE for address change or other inquiry.

If moving, list new address above.

In This Issue

FFA Goes International	7	Canoe Camping	44
A Day With A Chapter	9	Jerky Jogs Appetites	46
Look at Amphitheater	14		
Land Use	16	In Every Issue	
Business From an Acorn	20	Looking Ahead	4
Trail Toward Bright Career	24	From the Mailbag	6
Hydroponics	26	News in Brief	8
Five Great Farm Paintings	28	Chapter Scoop	32
Sleep Comfortably in Camp	34	FFA in Action	53
Kansas City Meeting	38	The Joke Page	62
Federal Way to Careers	40		

The Cover

Sometimes nature needs all the help she can get—like the salmon stream renovation work pictured on the cover. The photo shows a fish and wildlife class taught by Bob Arnold at Thomas Jefferson High School in Federal Way, Washington. For more about this program, turn to page 40.

Cover photo by Gary Bye

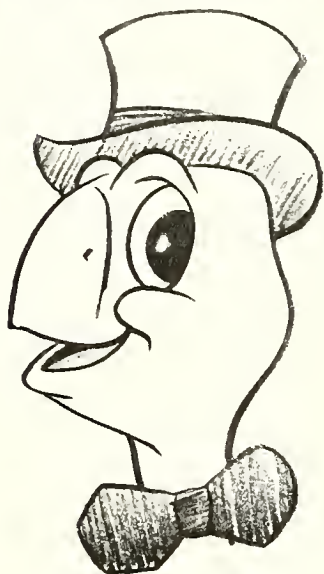
CHANGE OF ADDRESS: Send both old and new addresses to Circulation Department, The National FUTURE FARMER, P.O. Box 15130, Alexandria, Virginia 22309.

CORRESPONDENCE: Address all correspondence to: The National FUTURE FARMER, P.O. Box 15130, Alexandria, Virginia 22309. Offices are located at the National FFA Center at 5630 Mount Vernon Highway, Alexandria, Virginia 22309.

The National FUTURE FARMER is published bimonthly by the Future Farmers of America at 5630 Mount Vernon Highway, Alexandria, Virginia 22309. Second class postage paid at Alexandria, Virginia, and at additional mailing offices. Copyright 1978 by the Future Farmers of America.

Single subscription, \$1.00 per year in U.S. and possessions. FFA members 75¢ paid with dues. Single copy 50¢; two-four copies 30¢ each, five or more 25¢ each. Foreign subscriptions, \$1.00 plus 50¢ extra for postage.

**Over
\$5,000 in
prizes
Awarded Monthly**



Draw "Tippy"

You may win one of five \$995.00 Art Scholarships or any one of seventy-five \$10.00 cash prizes.

Draw "Tippy" any size except like a tracing. Use pencil. Every qualified entrant receives a free professional estimate of his drawing.

Scholarship winners will receive Fundamentals of Art taught by Art Instruction Schools, one of America's leading home study art schools. Our objective is to find prospective students who appear to be properly motivated and have an appreciation and liking for art.

Your entry will be judged in the month received. Prizes awarded for best drawings of various subjects received from qualified entrants age 14 and over. One \$25 cash award for the best drawing from entrants age 12 and 13. No drawings can be returned. Our students and professional artists not eligible. Contest winners will be notified. Send your entry today.

MAIL THIS COUPON TO ENTER CONTEST

ART INSTRUCTION SCHOOLS

Studio 8U-3540
500 South Fourth Street
Minneapolis, Minnesota 55415

Please enter my drawing in your monthly contest. (PLEASE PRINT)

Name _____

Occupation _____ Age _____

Address _____ Apt. _____

City _____ State _____

County _____ Zip _____

Telephone Number _____

Looking Ahead

Agriculture

CARRYOVER STOCKS, THOSE RESERVES that apply much pressure to a new grain market, are above a year ago for wheat, feed grains and soybeans. Wheat stocks at 41.5 million metric tons were nearly 10 percent above a year earlier, according to the Crop Reporting Board of USDA. Stocks of the four feed grains (corn, oats, barley and sorghum) totaled 119 million metric tons, 20 percent above April, 1977. Corn stocks were up 17 percent, sorghum grain up 39 percent, oats up 61 percent and barley up 25 percent. Soybean stocks at 22.9 million metric tons were up 36 percent. These figures are based on a survey taken in early April, 1978.

THAT EXPLOSIVE GRAIN dust, heretofore almost worthless, could become a valued feed ingredient said to have 80 percent of the nutritive value of the grain, indicated research at Kansas State University (KSU). The process involves converting the grain dust into a more easily utilized, non-hazardous coarse particle, perhaps a pellet or similar form, that is mixable with current feed rations and retains its nutritive value. Tests at KSU have shown no rejection of the substitution in the ration by the animals, even when it comprises 70 percent of the cereal grain fraction.

THE FOOD GRAIN FAMILY may be joined by okra seed, which contains 25 percent protein and 15 percent oil. It's under study as a new tropical grain crop with potential as a source of enrichment to wheat flour and as a year-round crop in both dry and wet regions. USDA has provided \$15,000 for a one-year study under a cooperative agreement with the University of Puerto Rico. Scientists will determine the most productive varieties of okra and their resistance to disease and insects.

PEA FLOUR IS ANOTHER protein-rich ingredient that may find a new home in our nation's bread. According to USDA this use of dried peas would add important fibers and carbohydrates and less fat to a product Americans consume at a rate of 50 million pounds per day. Fortifying bread with 15 percent pea flour would not affect taste and color, baking quality, or production costs, but could help wheat producers in the Pacific Northwest where 90 percent of the nation's dried peas are grown. Planting wheat in pea stubble provides excellent control over the erosion problems that have plagued that area's wheat fields.

FEEDING COW'S COLOSTRUM milk to newly born piglets could save more than one out of seven pigs that are usually lost per litter, according to a University of Wisconsin-Madison researcher. One ounce of the colostrum milk fed six times a day, could save both the lighter-weight pigs in a litter and the piglets from a larger litter that can't be handled by the sow. The piglets must start nursing directly on the colostrum after birth, or switching to the bottle will be difficult.

A DEVICE THAT makes possible the laboratory study of the automatic guidance of tractors has been designed and built by two scientists, one with the Alabama Agricultural Experiment Station and the other with USDA. The scientists constructed the simulator to avoid the time, expense and difficulty of using an actual tractor to test steering automation. The idea involves driving an overhung wheel on a wide conveyor belt at various speeds as the wheel turns from side to side and mimics forward motion.

SOIL IS BEING WASHED AWAY on the nation's cropland at an average rate of nine tons per acre per year—nearly twice the rate considered "acceptable" by soil conservationists, M. Rupert Cutler, USDA assistant secretary, said earlier this year. A Soil Conservation Service study says that average annual erosion ranges from a high of 23 tons of soil per acre in the lower Mississippi region to a low of one ton per acre in the California region. Other severe soil losses are: Tennessee, 19 tons/acre/year; South Atlantic Gulf, 18 tons/acre/year; Middle Atlantic, 14 tons/acre/year; Upper Mississippi, 10 tons/acre/year; and Ohio, 9 tons/acre/year.

Can you judge a horse by his wormer?

Ask Sarah Runyan.

The best judge of horse wormers has always been performance, so it's no surprise that Sarah Runyan prefers Shell Horse Wormer.

Sarah is an accredited judge of Appaloosas, POA's and Pintos for the American Horse Show Association. She's worked her way up in a field dominated by men. Part of her success has been her ability to spot "winners."

"It's a shame to let worms rob you of a ribbon."

Sarah can spot a good horse in a second. And she can spot a horse that needs worming the minute it enters the ring. A dull coat. Bloating. A sluggish manner. An undernourished look.



"It's a waste of time and money," says Sarah. "You put a lot of both into showing horses. It's a shame to let worms rob you of a ribbon."

Sarah recommends worming often with Shell Horse Wormer. It's an effective wormer against the most dangerous "killer" bloodworms. It controls roundworms, pinworms and bots, too.

And you can even use Shell Horse Wormer on pregnant mares and foals consuming grain.

Judge your horse wormer the same way judges size up horses—on performance and condition. Like Sarah Runyan, you'll choose Shell Horse Wormer.



The wormer to start with...and *stay* with.

horse wormer

SHELL CHEMICAL COMPANY • Animal Health • One Shell Plaza • Houston, TX 77001

From the Mailbag

Readers Report

West Jordan, Utah

I recently read the article in the magazine called "Loans and Lending." For several years I have had a goal to buy my own farm, but I have run into problems by trying to save enough money. It's just too hard.

So what I was wondering is if you could send me any information on that article. It would really help me out. I am applying for American Farmer this year.

Max Hunsaker, Jr.

There is now availability of loans to vocational agriculture students without a co-signature. It is a new policy in effect which requires only that the Farmers Home Administrator and your vo-ag instructor agree that you, the student, are capable of handling the loan. Loans can be in any amount agreed on by the student, the instructor and the FmHA supervisor for your county. This would provide an avenue for you to get capital, if they deem you responsible, stable and serious enough to be a reasonably "good" credit risk.

It is usually much easier to get in debt than it is to get out, Max, so examine your options closely before subjecting yourself to a heavy debt load. It takes capital to

get a farm started—you must add hard work and wise management to keep it going.—Ed.

Moravia, New York

Thank you for allowing us to reprint the article "Ag Sales: The Future Looks Great."

Mrs. Linda K. Carr
Research Assistant

Chronicle Guidance Publication

Kalona, Iowa

I found a most interesting article in your magazine dated February-March, 1978, titled, "The Professional Salesman," by Gerald L. Wilkins.

If available, I would like 40 copies of this article sent to me.

Don Rich

Vice President, Sales & Marketing
YODER, Inc.

Marionville, Missouri

I am checking on our subscriptions. Eight of our members did not receive a magazine. In addition, several of our members received magazines in which approximately one-half of the pages were missing.

Some members have not received issues for the last four months.

I have checked with our local post office and have double checked the addresses.

This is very discouraging to our members and is detrimental to the image of the FFA organization.

James L. Kyle
Advisor

It would be good if you could send us a copy with some of the pages missing as we do not fully understand the problem. In numbering the pages, we are required by the post office department to count the business reply cards placed in the magazine as pages of advertising. Consequently, if these cards are removed from the magazine or are not considered in the counting, it does appear that pages are missing.

Please assure your FFA members that each will receive a full year, or six copies of the magazine from the time their name goes on the list so they will receive all the copies they have coming.—Ed.

Mesa, Arizona

I am an officer in the Mountain View Chapter in Mesa, Arizona. We have only been a chapter for two years now and our reference materials are not very widespread. I am very interested about the Washington Leadership Conferences and seeing that we don't have any information on this I was wondering if you would be able to send some.

Also I would like to know what it takes to have an article published in the magazine. What kind of articles are you looking for and how long should they be? Our chapter has done many outstanding activities and you'll be hearing from us.

Cindy Gardner

Your request for information about the Washington Leadership Conferences has been filled. All chapters have recently been mailed a full color promotional brochure about the summer conference program.

As for getting an article published in the magazine, there is information in the Official FFA Manual on how to write a news article as well as information about the magazine. The best advice is to send it in.—Ed.

Harwood, Maryland

I would like to have more information about the Peace Corps. I read the article in the February-March issue.

Although I am only 18 years old this sounds like a real challenge and I'm willing to take it on. I've had three years of agriculture and am in the process of completing five years in the FFA.

Any information you could supply would be helpful even an address. I noticed the number 800/434-8580 and plan to call, but I would still like some written ideas on this.

Chris Brewer

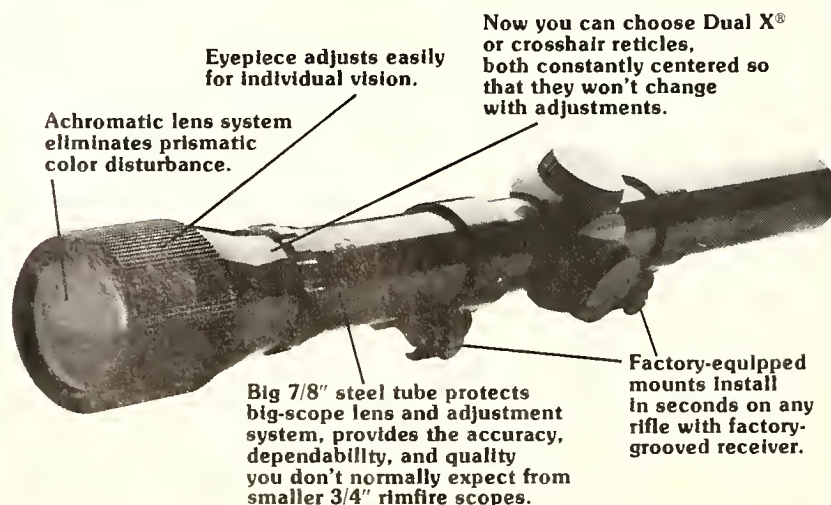
Sylacauga, Alabama

In the February-March edition you had an article on "Putting Safety On The Firing Line." Mr. Whittaker, the advisor in that story, has taken a very good subject to teach on, Learning how to handle a gun is something everyone should know.

Dale Johnston

The National FUTURE FARMER

The real 22 scopes. Made-in-U.S.A. features at made-over-there prices.



Weaver's 22 scopes. All made at Weaver's plant in the U.S.A.

Free catalog: W. R. Weaver Company, Dept. 93, El Paso, Texas 79915.

FFA Goes International

By Wilson Carnes, Editor

THE FFA's International Program provides FFA members with an opportunity to learn about agriculture and people in other lands. The program also places young people from other countries in work and learning situations in this country where they can learn about American agriculture and her people.

Prior to World War II, FFA had no international program on a continuing basis. After the war, the U. S. government called upon staff members in agricultural education and FFA to assist in the establishment of similar organizations in other countries. The book, *The FFA at 50*, reports some pioneering work was done in Albania, Greece, Egypt, India, Korea, Thailand, Taiwan, Japan, Philippines, South Vietnam, Honduras, Canada, South Australia, Peru, Colombia, Brazil, Panama and Mexico—though a complete list has never been compiled. Some of these organizations lasted only during the time the sponsors worked in the country. Others grew rapidly, namely those in Japan, Philippines, Colombia and Panama.

The first exchange program was started with the Young Farmers Clubs of Great Britain in 1949. Four members made the trip to Britain and four British Young Farmers came to this country.

In the following years a number of developments took place that further involved the FFA internationally. Several ambassadors of other countries spoke at the National FFA Convention. Many individuals who worked in agricultural education in their native countries came to the National FFA Convention to learn more about the FFA. In addition, special programs were developed with some countries.

One such program, for example, was during the years 1958-64 when FFA provided a leadership training program for the National Officers of the Future Farmers of the Philippines under the sponsorship of the Department of State. This program ran for four months each year.

For several years during the late 1950's and early 1960's, an FFA official, usually the executive secretary, and a former national officer traveled to other countries under various exchange

programs to assist in the development of FFA type organizations.

In 1963, the FFA signed a contract to sponsor a two-year Peace Corps project in West Pakistan. A total of 34 volunteers were involved in projects to improve agriculture, rural leadership, homes and home life and health throughout the country.

The FFA employed Lennie Gamage as the first full-time director of International Programs in 1968. Mr. Gamage was a former National FFA Officer and was employed as advertising manager of *The National FUTURE FARMER* prior to taking the position.

In 1970, FFA cooperated with U.S. AID/Education in South Vietnam to help establish a Future Farmer organization. In 1972, FFA sponsored a swine improvement program in Jamaica in cooperation with the International Labor Organization. A reconditioned farm equipment project in cooperation with the Meals for Millions Foundation was established in 1974 in Ecuador.

The Work Experience Abroad program was established in 1969 with the FFA working directly with the European Committee of Young Farmers Clubs which represented 14 countries. This program has continued to expand and in 1978, the FFA is working with more than 25 countries around the world in this international exchange program and in technical assistance in

agriculture and leadership development. Over 160 persons are programmed by FFA each year on long term exchanges and training programs.

In 1976, the FFA sponsored a World Conference in Agricultural Education and an "Ag-Olympics" program in Kansas City at the time of the National FFA Convention. This conference attracted 231 delegates from 28 countries. The agricultural skill "Olympics" was the first time that such an event has been held in the agricultural field. The purpose of the conference was for participants to learn more about each other by sharing and comparing problems, ideas and technical skills.

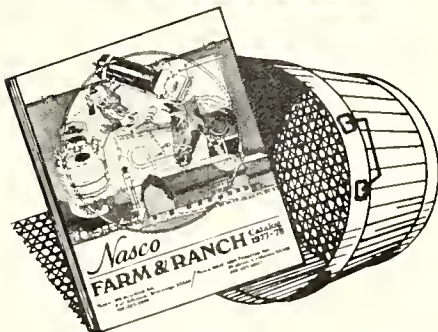
During its 50th year, the FFA finds its international program still expanding. A project being undertaken between FFA and the Ministry of Agriculture and Food in Romania is being financed by a grant from the Bureau of Educational and Cultural Affairs, Department of State. Negotiations are also underway for a program to help strengthen and expand the Future Farmers of Panama.

This summary of FFA's involvement internationally only covers some of the highlights of the organization's activities. It does present ample evidence, however, that FFA is assuming a responsible role in trying to help improve agriculture and the quality of life throughout the world.

These FFA members are learning about agricultural methods in another country.



Supplies by the bushel



Find everything you need in Nasco's Farm and Ranch Catalog. Animal health, livestock, dairy, breeding, grooming, soil testing and many other supplies. Write for your FREE copy, Dept. AL86

Nasco

Fort Atkinson, WI 53538
Modesto, CA 95352

One of A Kind



There is only one official supplier of FFA merchandise. It is National FFA Supply Service, Alexandria, Virginia.

- Owned by FFA
- Operated by FFA
- For FFA

That's right. Totally owned by FFA members and operated for them. Controlled by the National FFA Board of Directors and National FFA Officers.

All income above the cost of operation is used by the organization for the benefit of FFA members—not as profit to any individual.

Don't be misled by companies trying to commercialize on the name and emblem of FFA. If it is not from the National FFA Supply Service located at Alexandria, Virginia, it is not official.

Your advisor is mailed a catalog each summer. See him to order your FFA items.

Support FFA! Order from the:
National FFA Supply Service
P. O. Box 15159
Alexandria, Virginia 22309

News in Brief

The FFA



Lennie Gamage, FFA program specialist, answers a question as Chris Hardee, national vice-president, moderates.

EMPHASIS '78 MEETINGS

across the nation are rolling along very well. "They've been just great high-spirited meetings," said Coleman Harris, national FFA executive secretary. Thirty-five of the day-and-a-half meetings are being held across the nation for state staff, ag teachers, state officers and teacher educators to acquaint them with "The System," the set of all current materials for use in utilizing the FFA as part of the instruction in vocational agriculture/agribusiness. With most of the 35 regional workshops completed, the responsibility now falls to state Emphasis teams to carry the information to the local level. At left,

BRIGGS AND STRATTON CORPORATION has recently joined with the National FFA Foundation, Inc. in sponsoring the new National FFA Fruit and/or Vegetable Production Proficiency award for 1978. The new award will recognize those who excel in the use of modern management practices in the production and marketing of fruit and vegetable crops. This award joins the other 21 FFA Proficiency awards in recognizing achievement in activities leading to careers in agriculture and agribusiness.

JUST UNDER 100 EDUCATORS AND students representing 20 states at the National Seminar for Educators in Post-Secondary Institutions gave strong support in favor of developing a national organization on that level according to staff members present. The organization would be designed to meet needs of students involved in vocational agriculture programs at the next level following high school graduation. A report of the seminar, which is sponsored by White Farm Equipment, will be given at the July meeting of the FFA Board of Directors.

THE COLLEGIATE FFA/AGRICULTURE EDUCATION Workshop in early April resulted in increased enthusiasm for the representatives of 19 universities attending, according to L. H. Newcomb, associate professor of ag education at Ohio State University, the host campus. Idea-sharing and program development were on the agenda and the students left "excited and determined to have more viable college programs" on their respective campuses. Participants indicated an interest in spawning more activities at the college level that assist in developing specific competencies used in the FFA advisor's role. The workshop was sponsored by the Carnation Foundation.

FFA PROMOTIONAL PIECES like this one (right) are likely to appear in major farm publications over the next few months. The ads honoring FFA's Golden Anniversary are part of a public service media campaign being conducted by the FFA Foundation Sponsoring Committee. In addition to providing information about the FFA at 50, the advertisement seeks contributions to the FFA's 50th year endowment fund to be invested for the perpetual support of the FFA.

Join our 50th Anniversary Celebration!

Give the Future Farmers of America just what they deserve... YOUR HELP!

I want to help. ☐ \$10 ☐ \$25 ☐ \$50

Name _____ **Address** _____

City _____ **State** _____ **Zip** _____

Send no money now. We will bill you later.

Future Farmers of America Foundation
P.O. Box 15159
Alexandria, Virginia 22309



A Day With An Active Chapter

Clicking Clan lives up to the
name with three major activities
in just one day.

Doni Angell watches carefully as
her instructor attacks the rack.

THERE are many different activities associated with good FFA chapters. They sometimes do exhibits for flower shows, sometimes take pre-schoolers through maple syrup houses, or might even raise and butcher their own beef for a chapter banquet. But seldom do they do it all in one day.

Except at the Clicking Clan Chapter of Pinkerton Academy in Derry, New Hampshire. In late March it happened.

Dozens of small people were lined up at the small sugar shack located on the school grounds, each one eventually allowed a standing space on a 3-foot tall stool to a look into the tank as the sap was being boiled down. A Clicking Clan FFA member would then gently hold onto the child while explaining, in simple terms, the sugaring process—how they tap the maple trees all around the high school, get the raw product, put it in the tank, keep it a certain temperature, draw it off at a certain time, then label it and sell it.

Small inquisitive faces visible through the steam rising from the tank would ask small questions, always satisfied with the answers they got from the "big kids." The children, in addition to seeing the sugar operation, often are taken across the road and back the walkway to the school farm where fascinating things like "cattle without horns" await them. As they returned, they would be allowed to tour the greenhouse.

This education and publicity program is ongoing at Pinkerton Academy and Advisor Larry Rondeau, Jr., is pleased with it. "The parents hear about it when the kids go home and come to realize

that there's more going on up here than they thought," he said. "It's an illustration of the old slogan 'It's not all cows and plows.'"

On this day the greenhouse was not a high point of the children's visit, however, because it contained more hurried activity and fewer plants than usual. This was the set-up day of the New Hampshire Flower Show and Pinkerton was one of two high schools in the state that were invited to participate. As helpers quickly load a few more plants into a station wagon at the academy,

things are really hopping at the armory building just off the main drag in Manchester, ten miles up the road. The FFA group is putting the finishing touches on their 40-foot long display under the watchful eye of John Moulton, another of Pinkerton's four instructors.

"It's really a bit tedious at times," said junior Bryan Webster. "There's a lot of redoing to make it just right." Bill Boles, sitting beside him, brushed at the soil stains on the knees of his corduroys and agreed. "We changed the squash

(Continued on Page 10)

John Mastromarino helps with the finishing touches of the vegetable display while another student gives a smaller one the basics of maple syrup processing.



Active Chapter

(Continued from Page 9)

section of the display six times already this morning . . ." He wasn't quite sure what he'd do if someone decided it needed one more switch.

Pinkerton's display is the only grouping of vegetable plants in the show and they are one of the few that are paid to exhibit. The chapter receives \$800 for their participation.

Two full days of painstaking arranging are the culmination of three months of give-and-take on arrangement ideas and actual plant production.

All the plants are started from seed and the timing must be calculated to assure the correct stage of maturity by show time. Squash, carrots, tomatoes, cabbage, lettuce—even sweet corn—are raised to a big healthy stage and incorporated into the show.

Judging of the displays makes it a bit

more interesting as Pinkerton competes with Pembroke Academy as well as a group from the University of New Hampshire. Pinkerton has won the contest each of the last three years.

Back at the academy farm, a side of beef continues on its trip to the dinner table.

Students huddle around instructor Rondeau for a demonstration of a certain cut before splitting up to work on separate projects, all parts of the assembly-line in reverse. Two begin to make hamburger, two more wrap up some stew meat while several other tackle the larger cuts on the center table.

"They're learning an awful lot in here today," Rondeau said, looking very meat-marketish in his white lab coat and striped tie. He indicated that this type of training would not be lost wherever a student ended up. "They're learning to know what to look for when

picking out meats in the store—that will always be useful."

The 1,400-pound Angus was raised on the school farm and, once cut up, will be served at the chapter banquet. Some of the meat, as with some products coming from the chapter's greenhouse, will be sold to members of the high school's faculty.

Now some of the FFA'ers were heading back to the shop sink to wash their hands. The last period was over and many had track practice to attend. A busy day, full of flowers, beef, maple syrup and small children, was showing signs of its conclusion.

Outside, though, chapter President Doni Angell shared some of her mental notes with a fellow member. She indicated that just because one busy day was finished, things weren't slowing up. After all, the chapter's open house for parents and the general public was less than five days away.



FFA at 50 A 50th FFA Anniversary Contest

A Golden Past — A Brighter Future

Easy to Enter — You Can Win!

Here is one FFA Contest that is easy to enter and every FFA member is eligible to participate. Take the 50th Anniversary theme as your subject and write an essay of 500 words or less. Check the simple rules at right; and send it in. Somebody is going to be a winner and it could be you. Prizes; three cash awards and ten honorable mentions.

Your subject is "FFA at 50—A Golden Past—A Brighter Future." Just what do these words mean to you? It is a slogan that should make you stop and think about your membership in this great organization. You can write about its past, present or future, or all three. You may want to dwell on the "brighter future." What do you see as the future of the FFA? Will it become even better, or just fade away? How will it serve its members? Is the future

brighter? Why? These suggestions are to get you started but use your own ideas.

The winning essay will be printed in **The National FUTURE FARMER** so all FFA members can share your thoughts. The judges are a distinguished group of outstanding past FFA members and people who have a long association with the FFA.

Don't let the deadline slip up on you. Get to work on your essay right now and send in your entry. Remember it must be postmarked August 1 or earlier.

PRIZES:

Cash awards may be used to help pay your expenses to the Golden Anniversary Convention in Kansas City, apply to your scholarship fund or to use as you prefer.

First Prize — \$100

Second Prize — \$50

Third Prize — \$25

Honorable Mentions: There will be ten

Honorable Mentions. Each will receive a bronze FFA medallion similar to the example above.

RULES:

1. Essays must be 500 words or less and on the theme "FFA at 50—A Golden Past—A Brighter Future."

2. Entries must be typewritten and double spaced or handwritten neatly in ink on lined paper.

3. Your entry must be postmarked before August 1, 1978.

4. All entries become the property of the National FFA Organization and cannot be acknowledged or returned unless you specifically request us to do so.

5. The contest will be open to all bona fide, dues-paying, FFA members on our rolls as of May 1, 1978.

6. Entrant's name, address, phone number, chapter name, state and age must be printed on an attached cover sheet.

7. Mail entries to "50th Anniversary Contest," **The National FUTURE FARMER**, P.O. Box 15130, Alexandria, Virginia 22309.

8. Entries will be judged by a panel of outstanding past FFA members and persons who have a long association with the FFA. Selection will be made on originality, conclusions drawn, and overall effect achieved by the essay.

9. Winners will be notified just prior to publication of the October-November, 1978, issue of the magazine in which the winning essay will be printed.

10. Prize winnings will be the sole responsibility of the winning individuals in regard to tax rules.

11. Judges' decisions are final and not subject to appeal.



Pay & Benefits

If you enlist in the Army, you'll start with good pay; a long list of skill-training courses to choose from; 30 days paid vacation each year; the opportunities to travel, to continue your education, and to qualify for veterans' educational benefits. For more information about all the opportunities in today's Army, send the postcard. Or call 800-431-1976 toll free. In NY call 800-243-5614.

Responsible.

"It's like the way a baby grows. It's a child, then a teenager, then a man. It all comes with responsibility. You've got to prove yourself every step of the way. That's the way the Army is. They'll give you a piece of equipment, train you, and say, 'You are responsible'. If you're good and you know your job, you'll move up and get more. Right now I'm a senior gunner in a Chaparral Missile section. And every guy on this section is responsible for the other guy. That can make you an adult quickly. Responsibility feels like — it feels like strength."

**Join the people
who've joined the Army.**

SGT Calvin Jarrell, Schwabach, Germany

Look What They Are Doing At Amphitheater

By John L. Parker



Advisor Andy Groseta, left, in the garden unit with hort students.

The Facilities



One end of machine shop and classroom section is covered for outdoor work.



The swine section has 24 pens on concrete with individual waterers and feed bunks. All of the facilities are lighted.



The small stock unit of 14 enclosed covered pens for poultry and rabbits.



The shed for baled hay storage also has plenty of space for bulk storage.

FIVE years ago the school board for Amphitheater High School in Tucson, Arizona, faced the problem of students who were interested in agriculture as a vocation but were stymied by their inability to gain practical experience.

After developing a program, the school constructed a working laboratory on 6.6 acres of land near the outskirts of the city. It was finished last August and was designed similar to facilities and equipment found on farms and ranches.

From the start, the project had enthusiastic support from parents and agricultural interests. The project was financed by the school through a \$290,000 bond issue. The cost did not include the land which the school owned.

The school has 135 students in vocational agriculture/FFA and 80 to 90 students make daily use of this special program. The other students live in the country and get their work experience at home.

Andrew Groseta, vocational agriculture instructor, told us, "We find a growing number of urban students eager to get into agriculture. The students in these programs are here because they want to be."

Students with steers like the challenge of competition; beef unit has 13 pens.

A special horticultural section is reserved for landscaping projects with ornamental and native plants. Other sections include a machine shop, a large arena for conducting fairs, health clinics, auctions and seminars. The operation has its own well and water storage system.

Students also have the opportunity to operate farm equipment under the direction of Mr. Groseta or his assistant, Spencer Brown.



Some members use the sheep-goat and dairy calf unit consisting of 32 pens.



Announcing . . . a complete line of grooming products for show cattle!



Royal Purple Cattle Grooming Products

And it's about time!

Now, you don't have to wait until showtime to stock up on wax bars or show oils. Now, you don't have to use household products or horse grooming products on your show cattle. Now, you can drive to practically any feed store and buy grooming products made especially for show cattle. Professional cattle grooming products to help you fit your show animal the way you want. To help you win!



P.O. Box 12068, Omaha, Nebraska 68112

. . . a division of Farnam Companies, Inc.

Royal Purple has a full line of show products. Show Wax, Glycerine Bar, Peach-Show Dressing and Spray Foam — all color enriched to enhance your show animal's coat. Show Oil and Show Mist to make coats glisten. Give lasting bloom. Show Adhesive made especially for holding hair . . . perfect for tail balls! After Show to remove all the wax and oils.

And . . . Show Poo. A special "no-dandruff" shampoo for cattle that prevents flaking and itching!

If you show cattle, there's only one name you need to remember. It's the same as the ribbon you want to win at the shows. Ask your local feed dealer for Royal Purple! For the name and address of a Royal Purple dealer near you, write . . .



Look for the Royal Purple Display at your local feed dealer.

OUR BOUNTIFUL FARMLAND—

How long before it's gone?



Cattle and coal shovels in Illinois illustrate increasing competition for land.

Photos by Author

New pressures on land are forcing us to take a long, hard look at its management—past, present and future.

By K. Elliott Nowels

The Past

It was an immense empire, larger than the whole of Western Europe. To the many weary crossers of the Atlantic that longed for their own ground, it must have seemed like paradise. In Europe, land ownership was the privilege only of a few, but in America, whether rich or poor, it seemed that there was enough for all.

So much land. Imagine how it must have felt. Rather like a small boy at the edge of a table laden with a Thanksgiving feast, the early settlers simply couldn't see the end of it. Forests were cleared. Crops were planted—grain in the northeast, rice and indigo in the Carolinas and tobacco somewhere in between. With many crops, but especially tobacco, the big money crop, little effort was made to feed or rest the soil. Under a crop of tobacco, within three or four years, a field would become exhausted. Oh, well, it was no problem in

America. The grower simply abandoned his ruined fields and cleared more forest. If there was an attitude that was held in common among the settlers, it was the idea that the natural resources of the new world seemed inexhaustible; they tapped into the supply with reckless and uncaring abandon.

By 1776, some slightly larger towns had sprung up and enterprising merchants hung out their shingles. Cobblers, cabinet-makers, blacksmiths, and those that dealt with the growing export markets turned to their specialties while the other 19 out of every 20 lived on the farm reaping the benefits of the soil.

Shortly before this time America proper extended from present-day Maine down to what is now Georgia. It was of fairly equal width its entire length, and included the land from the coast to the Appalachian Mountains. By the end of the Revolutionary War in 1783, the pioneers had pushed beyond the mountains and to the Missis-

sippi River. Thomas Jefferson's idea of an agrarian society, where the common people had custody of the land, was quite feasible. As if this was not enough land, on April 30, 1803, he finalized the Louisiana Purchase, the name given to all lands west of the Mississippi that were drained by the river, a total of 530 million acres. The price? Fifteen million dollars, or about 24/5 cents per acre. Talk about a cheap resource! And a home for the masses!

And the masses did come, every color, every creed. Countless people stepped off in the early 1800's and the pace did nothing but quicken. Between 1860 and 1930—70 years—31 million people arrived in America. The new Americans spilled out on the land, settling in those rich and flat alluvial valleys that promised a good agricultural income and way of life. The rivers and canals became the nation's mode of transportation and towns sprung up beside those early "highways," a foreshadowing of

what one day could be troubling.

There was so much land that the government had trouble controlling it all. The Homestead Act of 1862 was a monumental part of settling the western reaches that had been acquired. For a nominal filing fee, it gave people 160 acres of federal land in return for the promise of farming the land for five years. By the end of the war, some 15,000 homesteaders had made the rough trip west on foot, on horseback, by boat, covered wagon and train.

Barbed wire, windmills and the steel plow were the pieces of equipment that became important as the West was

"tamed." Transportation of goods usually decided where a town would be located—near the river, near the railroad—and still close to agriculture. The Chicago's, St. Louis's and Kansas City's grew rapidly.

When the hammer hit the golden spike on the track that joined the eastern rail "system" with that of the west at Promontory, Utah, in 1869, the shrinking of America, time-wise, became more apparent. On the transcontinental railroad it took just short of a week to cross the nation. Less than a decade earlier it would have taken almost a month with a travel combination

of stagecoach and train. Today, a trip by plane takes about five hours.

The 1900's brought the machine that has become such an integral part of the American dream—the automobile. Better roads were needed for the new beast and, as had happened with the railroads years earlier, the highway builders also chose prime farmland for their construction projects—both because it connected those towns that had sprung up in the rich valleys and because it's the cheapest place to build.

Shortly after World War II intensive road building occurred and, coupled

(Continued on Page 18)

The Present

At the time of this interview, Neil Sampson was Coordinator of Air, Land, Water and Solid Waste for the United States Department of Agriculture, overseeing all of USDA's efforts in environmental affairs. Recently he was named Executive Vice President of the National Association of Conservation Districts which bands together nearly 3,000 local conservation districts in America.

"It looks like somebody stood back and shot the county with a shotgun, that's how random it's become." Neil Sampson admitted that he'd first heard the term "buckshot urbanization" from someone else, but didn't mind borrowing it because it describes amply what's happening currently to the use of land in America.

Better roads, higher housing costs and a more mobile society—people that move around more and quicker—have brought untold pressure to the outlying areas of prime farmland. The *rural-urban fringe*, a phrase used to describe a land area where rural living and urban living come together, is no longer confined to the areas just outside cities like Washington, D.C. and Kansas City.

"If you look at the newer maps, you begin to notice speckles all over the landscape as we urbanize a 40-acre plot over here, a 20 over here and put three homes down here and somebody builds a plant over there," said Sampson as he threw his hands in several different directions. "It's noticeable anywhere you go. It's noticeable right in the middle of the corn belt."

Sampson said that the "ol' one to three"—the idea that for every acre urbanized or built upon, we might put three out of production due to the hitting and skipping with land being trapped in the middle—might presently be more in the one to ten range. A 1977 situation paper he wrote quoted a loss of 1 million acres of *prime* farmland a year.

But a simple statement about "acres put out of production" can't serve to tell

the full story of a diminishing land base in America, or the pressures associated with it. Sampson cites skyhigh land prices, land taxes and the nuisance sort of things like chemical drift, kids playing in the crops, dogs chasing the calves—things that used to be confined to the fringes of the large cities, but are now problems that have spread over the national landscape.

"You don't have to get very many sprinkles of urbanization in the agricultural community until the farmers begin to get very nervous about their continued ability to farm commercially," he said, "... all the problems that come from that sort of urban-agricultural boundary are just grossly magnified when there is no longer a boundary, but there's these little speckles of urbanization all through the agricultural community."

Another inescapable dimension to the land use issue in America is the decreasing productivity of our remaining cropland. Sampson indicated that we are now paying for the "big push in '73-'74 to farm everything in the world.

"They rushed onto lands that we had 20 years of conservation programs on ... getting it out of production. In the Great Plains, for instance, they plowed up soils that we knew wouldn't hold it."

Sampson says the land use problems that he's been describing have not been occurring because there was no land use control out there. There has been. "Much of the problem has been that it's done the wrong things, that it's pushed things the wrong way or hasn't foreseen the sort of secondary impact," he said.

Sampson ticked off "improvements" of the rural situation that have turned out many times to be calling cards for development pressure. Paved farm-to-market roads, good water and sewer lines, improved electrical lines—the services that are still in need in many places for people and livestock—can in some cases simplify matters for the developer just enough that the houses will start to pop up.

"We just can't build the community



Sampson—I to 10 shotgun urbanizing.

pattern of the future without even recognizing that we're doing it. Every time we string a sewer line down through a piece of open land, it's an open invitation to urbanize that land. If those local people don't want that area urbanized, we may have to require that there be some kind of agreement not to add additional taps on it."

Sampson says that zoning laws and preferential taxation for farmland are parts of the solution, but sometimes get swept away by the type of secondary impact he described. A bigger part of the solution across the board, he believes, would simply be increased awareness of the land use issue.

"It seems to be what we're talking about is simply creating a much more responsive system," Sampson says. "Individuals and governments at the local level must be aware of potential long-term effects their decisions may have.

"Many agriculturists have just avoided getting involved in local land use programs," Sampson said. "I think the younger farmers are going to have to understand it, get involved with it and in many communities, run it, and they'll not do that unless they start getting aware at an early age."

The Past

(Continued from Page 17)

with the Highway Act of 1956, resulted in our present road system, complete with an interstate system connecting 90 percent of America's cities with almost 50,000 miles of limited-access divided highway. It was now possible to drive the over 3,000 miles from Seattle to Boston without stopping for a single red light.

All this development had an impact

on land much greater than the many acres taken up by countless cloverleaves and endless four-lanes.

By 1970, 37 percent of the American people migrated from the cities to the countryside where they found they could still travel to their downtown jobs in a matter of minutes. So went the birth of the suburb, springing up along the travel corridors, often taking increasing amounts of that rich agricultural country that drew the early settlers to this bountiful land so long ago.

Electricity, water and sewage lines, telephones—all of these followed the people farther into the country, cutting the farmer's land into wierd shapes.

America has 1.3 billion acres in total. Probably over half of that is available for agricultural purposes, including livestock and grazing. The greatest body of prime farmland in the world is here in America and many peoples in many lands depend increasingly upon it. But how long before it's gone?

The Future

Lester R. Brown is president and a senior researcher with Worldwatch Institute, a private, non-profit Washington-based international research group devoted to the analysis of emerging global issues. He has appeared on numerous television shows, including "Meet the Press" and the "Today" show and has been described as "one of the world's most influential thinkers" by the Washington Post.

Lester Brown believes that the United States and other nations will face "rapid, profound and perhaps traumatic change" in coping with the earth's diminishing energy and biological resources. With land serving as the active and potential base for the production of so much—food, energy crops, firewood, to name a few—it will be in the thick of the issue.

"Given the pressures on the world's land resources for food, energy, and other raw materials, I think we are going to have to use land far more judiciously in the future than we have in the past," said the author of six books on world food and environmental problems.

Brown speaks of the land use problem in America as being made up of both a "quantity" factor and a "quality" factor. Loss of acres of cropland to strip-mining, urban sprawl and desert encroachment on one hand and loss of topsoil due to erosion on the other.

While ½ million hectares (one hectare=2.47 acres) are converted to ag use yearly, the loss to other uses is somewhere near twice that much. As proof of the slip in quality, Brown gave as an example a survey in Wisconsin that pegged soil formation in that area at four tons per acre per year, while soil loss was at nine tons per acre per year.

"That general situation prevails in a substantial part of the United States today, exactly how much, I'm not certain. Could be a quarter or a third or maybe 40 percent," said the former FFA member. In the short run, he added, that loss of soil can be "masked" by the heavy use of fertilizer but over the long term, as fertilizer prices soar

with the energy crunch and fertility level drops even more, it will become more difficult to do that.

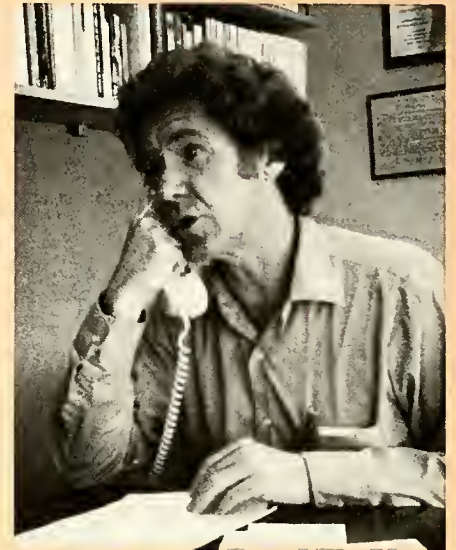
"I think we can say with some confidence—perhaps even a disturbing degree of confidence, that the productivity of our land is not rising in the way in which we had thought it would, or certainly as we would like it to."

Along this line, Brown believes that there will be a movement of people back to the land over the long term—a reversal of current trends—for a pair of reasons. He pointed to the fact that a person living on the countryside requires less energy than one living in the city, plus the difficulty to creating jobs in an urban-industrial setting for the over 1 billion people that will enter the world's job market between now and the end of the century. Does this mean smaller, perhaps more labor-intensive farms?

"I think so," observed Brown, "and I think energy is going to be one of the reasons. We have an agricultural system that has evolved essentially on oil that has cost less than \$2 per barrel—and that was still the case five years ago." Before too many more years he continued, we're going to be working with oil that costs \$20 a barrel. A world economy or an agricultural system that is based on \$20 a barrel will look far different than one based on \$2/barrel.

According to Brown and others with a close finger on the pulse of the world's oil pipelines, world oil production is projected to peak and start its decline within the next 10-15 years. This could bring into yet sharper focus the intertwining of the basic resources of energy and land.

"There is discussion in this country and elsewhere of beginning to produce some crops for energy purposes—for conversion into alcohol," Brown said, citing Brazil as a country that expects, by the year 2000, to be getting all of their automotive fuel in the form of alcohol through the converting of sugar cane in large distilleries. "If we do that, then the energy sector is going to compete with the food sector for land, which means among other things that



Brown—energy crops and \$20/barrel.

land is likely to become more scarce—and more costly."

When asked for a timetable of when those sorts of things might occur, Brown attempted to put it into an easy-to-understand perspective.

"Some of the cars that are being sold this year will still be on the road when world oil production turns downward. We're not talking about a problem our grandchildren will have to face in the middle of the next century—we're talking about problems that we will have to face even while we are still driving the cars that we now have—it's that close," he emphasized, adding that market forces will begin to respond to that peak and subsequent downturn long before it occurs. "Anticipation of it will raise the price of gasoline to the point where alcohol may be a cheaper source of fuel."

Brown says we've got an economic system that is clearly not sustainable as we've designed it. "What we've got to do is bring about changes in that system so that it will be sustainable—so there will be something to pass on to future generations," he said.

"That means conserving land and managing it carefully through land use planning and it means conserving energy and using it only for essential purposes . . . not frivolously or wastefully."

Johnstown Flood '77: Only Leupold makes it through hell and high water.

Three out of the four leading scope manufacturers would prefer that you *did not* read these two testimonials. Understandable. Certainly, we're disappointed that

Leupold's record was not perfect. But, the figures do show that the survival odds definitely are in your favor with a Leupold "Golden Ring"® scope.

Hornick's
QUALITY SINCE 1917

• SPORTING GOODS • HARDWARE •

Phone (814) 535-7724

316 Broad St.
Johnstown, Pa. 15906

January 30, 1978

Leupold
Attention: J.V. Slack
Post Office Box 688
Beaverton, Oregon 97005

Dear Mr. Slack:

The night of July 19, 1977 was no different than any other mid summer night in Western Pennsylvania, except that it was raining, very hard and very steadily. We were to find out later that the Johnstown area received almost eleven inches of rain that night, a record everyone hopes will never be broken. Since we live in the hills surrounding the low-lying city of Johnstown, we did not realize the intensity of the disaster that struck the city that evening.

However, the next morning, as we waded through knee-deep water across Broad Street and made our way into the store, we finally began to realize how bad things really were. Expensive rifles, shotguns, knives, etc. were thrown around everywhere from the force of the water. All the ammunition, archery supplies, boots and clothing was either soaking wet or covered with mud, or both. It seemed as though everything had been washed off the shelves and into the quagmire on the floor. The store was an incredible mess, something none of us ever want to live through again.

To add insult to injury, our entire scope inventory was stored in the basement. Because the water in the basement did not recede until two days after the flood, the scopes were particularly hard hit. In fact, most were washed off the shelves and into the mud on the floor. There were four brands, totaling 1,685 scopes. Of these, 828 (52%) fogged or otherwise failed. However, the Leupold scopes came through with flying colors. Without naming competitors, the failures were: Brand A—168 out of 455 (36.9%); Brand B—344 out of 515 (66.8%); Brand C—311 out of 311 (100%); Leupold—5 out of 304 (1.7%). Everyone thought that was an incredible percentage. We've always recommended Leupold as the best scope on the market. Needless to say, our experience with the flood has convinced all of us that Leupold is, indeed, the best scope that money can buy.

Sincerely yours,

Paul Hornick Jr.

Paul Hornick, Jr.
President

Post. Lic. 23-2188
Post. Lic. 23-4781

W. R. Varner Gun & Marina Service

207 Hawthorne Street
JOHNSTOWN, PA. 15204

EXTRA
Complete Gunsmithing
Services & Repairs
Work Guaranteed

Outboard Motor Service
Parts & Supplies
O. M. C. Factory Trained Mechanics

Small Arms
Aluminum Craft

Leupold & Stevens, Inc.
P.O. Box 688
Beaverton, Oregon 97005

October 3, 1977

Gentlemen:

These days of so much griping and complaining about products, I feel it necessary to tell you about how your products took a beating far above the call of anything that a rifle scope should be asked to take.

I have been selling your scopes exclusively for the past 10 years, for the simple reason that I have never had a Leupold scope returned because of fogging up or any other malfunction since I've been in business, and that's 30 years. I previously sold many kinds of scopes, but found out I could do without the grief that comes with selling other brands.

My main reason for writing is to tell you the experience that I have had here in Johnstown, Pa. since the devastating flood we had in July. Since then I have had approximately 280 guns brought into my shop for cleaning, rebuilding and other repairs. I have had about 90 to 100 scopes brought in also. And, here is the good part. Not one, I repeat, not one of the Leupold scopes was filled with water or fogged up in any way. In fact, I took the Leupold scopes off the rifles and washed them off with the water hose and they were all in as good a shape as the day they came out of the box from the factory. Now, if that's not a recommendation or a testimonial, I don't know what is.

In fact, only yesterday, a customer brought into my shop a Win. 70 that had a Leupold 3x9 varipower on it that had been buried under tons of mud and water in his cellar since July 21, 1977. They could not get to it place until they diverted the channel of the river back to its natural course. I removed the scope and turned the hose on it and truthfully it was still in perfect condition. Luckily the shop was full while I was doing the job and because of it I sold five new Leupold 4X scopes before the shop cleared.

I am certainly glad I seen the light 10 years ago and sell only Leupold scopes. It saves me a lot of trouble and grief.

Thank YOU

W. R. Varner

W. R. Varner

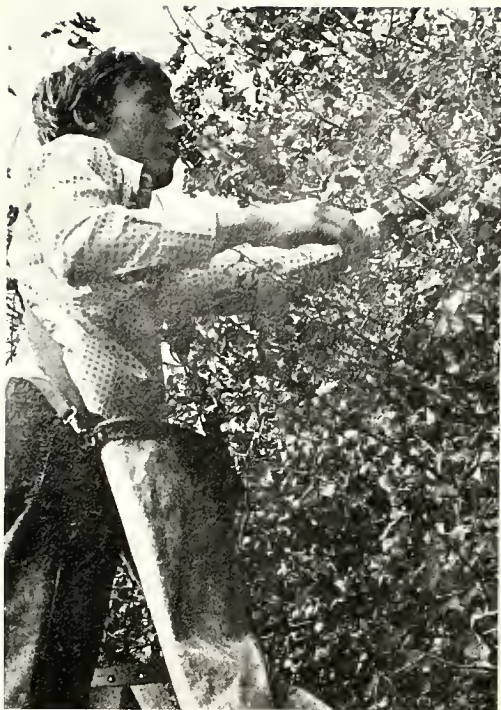


Leupold SIGHTS

Partners in Performance with
NOSLER BULLETS

Leupold & Stevens, Inc.
P.O. Box 688, Beaverton, Ore.
97005 U.S.A.

... performance like this starts on the inside



Rob learned to collect and market the kinds of nursery seeds people wanted.

ROB Lovelace began his freshman vo-ag program by picking pin oak acorns and then sold his horse to finance some equipment.

He lives in the country with his family and freely admits "my main interest is in the field of plant propagation from seed and more directly in the area of woody ornamental plant seed."

From his small beginning, Rob has established Rob Lovelace Seeds with an inventory of over \$48,000 worth of ornamental plants and seeds, plus his buildings and equipment valued at \$15,000.

Currently he supplies over 51 different varieties of nursery seeds to 39 nurseries in 20 states and has even had one go to England.

A big part of Rob's hard work as an Elsberry, Missouri, FFA member has been in the area of marketing his seeds.

"I became interested in ornamental seed while working for Forrest Keeling Nursery in Elsberry, where I assisted in their seedling propagation and growing department," Rob says. "I collected seeds for my supervisor at the nursery and from this experience I learned the names and how to identify different varieties of trees and shrubs. I obtained a list of nurserymen who grow plants from seed and also seed companies who deal in shrub and tree seed. I mailed these people a list of seeds I could collect. I received from my first mailing, orders in the amount of \$1,120. From these initial sales I purchased some cleaning equipment and also purchased my first selected plants for establishing an improved seed orchard. Some of my

A Business That Grew From an Acorn

By Jack Pitzer

customers encouraged me to consider improvement in ornamental seeds since there has been very little work in this area. I began planting my orchard on two acres of leased ground.

"By expanding my customer list and word-of-mouth from my first customers, my sales have grown to well over \$20,000 annually. I have expanded my planting to more than nine acres, have purchased more processing equipment and equipment for mowing, spraying and maintaining my orchard. I completed construction of a 28-foot by 45-foot building to house my processing and cold storage. I have accomplished and financed my project entirely from profits derived from my seed business."

Business has come from repeated mailings of his seed catalog to potential customers. Rob does some selling by phoning major seed companies and discussing his inventory and their needs. He received his first foreign order from England and learned how to export seed by getting proper inspections and certification, how to prepare and ship by air to comply with customs, how to figure exchange rates and convert pounds to dollars. He is also developing a complete historical background on all species of plants that he is using for seed improvement. This includes such things as origin, altitude, disease resistance, climatic tolerances and genetic superiority. These are emphasized and promoted in his list to help sell the improved seed and to explain why these seeds merit a higher price than seed from unknown background.

Besides his financial success, Rob has gotten a foothold in a relatively new field in horticulture. His chapter advisor, Wallace Hart, says, "Dr. Long at the University of Missouri has shown a real interest in Robbie's program since it's new and there is a need for genetic improvement in nursery stock.

"Robbie has become well known in the nursery industry for his knowledge of seed collecting and cleaning and gets many inquiries during the year as to new methods he is using. He is planning this year to use cold storage to break the dormant stage of some seeds. This

service will allow his customers to plant seeds faster with a better germination rate."

Rob is also quick to acknowledge the support and learning experiences he gained from his father who is in nursery management and also from the folks at Forrest Keeling Nursery where he worked during freshman and sophomore years.

Likewise, he has involved others in this horticulture area by training classmates, friends and local organizations in seed collection. This included nearby FFA chapters. Rob would get them involved in collecting seeds for him and then the chapters could earn money for their treasuries.

His accomplishments earned Rob the 1977 National FFA Proficiency award in Ornamental Horticulture at the National Convention in November. It is sponsored by the National FFA Foundation.

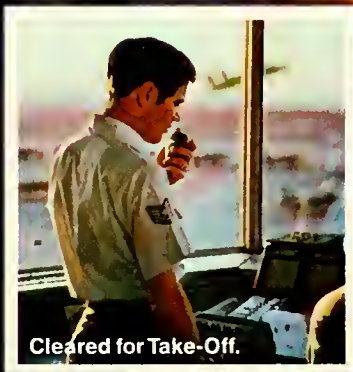
As you can see, Rob's work was with nursery stock, but there are many facets of ornamental horticulture in which FFA members are involved.

Consequently, this national proficiency award will be divided into three separate awards for 1978. Rob is the last to receive the award called Ornamental Horticulture Proficiency. The award was started in 1966 to recognize the expanding of career opportunities in horticulture and the national winner was Thomas Chant of California.

Already local chapters are recognizing their local winners for the three awards encompassing horticulture; 1) floriculture, 2) fruit and/or vegetable production, and 3) nursery operations. Then states will select state proficiency award winners and finally, the first national winners will be selected at the November, 1978, National Convention. They are all sponsored by the National FFA Foundation.

Perhaps you should also know that after 1978, the national judging contest for horticulture will also be changed. It will split into two contests, 1) floriculture contest, and 2) nursery/landscape contest. They, too, are special projects of the National FFA Foundation.

THE EAGLE IS READY.



Cleared for Take-Off.



Eagle Flight Left, Two-Three-Zero.



Mission Completed.

TEAMWORK. Electricians. Mechanics. Pilots. Radio repairmen. Security police. Fuel and hydraulic specialists. Young people and seasoned experts. All working together. Each dedicated to their profession, the Air Force, and America.

A GREAT OPPORTUNITY. The Air Force offers some of the finest technical training in the world. A good salary. Even the chance to work toward an Associate Degree through the Community College of the Air Force.

GET ALL THE FACTS. Contact your Air Force Recruiter. Or fill out and mail the card attached to this page.

It's a great way of life!

AIR FORCE 



An amateur taxidermist herself, Maura poses beside a quiet friend.

A TRAIL TOWARD A BRIGHT CAREER

Maura has found her vocation and hobbies to be one and the same.

By K. Elliott Nowels

Animal science, plant science and other courses in production agriculture caught her eye in high school as she gradually immersed herself in the ag-related sciences that play a huge part in natural resource management.

When the opportunity for a school-related internship arrived with her senior year curriculum she looked around and found work at a wildlife sanctuary, Cook's Canyon, under the auspices of the Massachusetts Audubon Society.

"I had the opportunity to study plants and wildlife and really become familiar with the place," said the former member of the Wachusett FFA Chapter. She and the program director talked of a new self-guided nature trail and agreed to concentrate on both identification and interpretation.

"We didn't want a trail that said, 'This is an oak, this is a maple,'" Maura rolled her eyes at the ho-hum sound of it. "We wanted to help people remember the woods by telling them little facts that stick in their minds. For example, here's one part of the sanctuary that has a red pine plantation. Instead of just telling that it's a red pine, we wrote 'This is the way you can tell the age of a red pine—each ring of branches is one year's growth.'"

By giving nature walks and leading discussions, a lot of Maura's time did go into the research of the trail and finding the most effective way of educating the people. She says this is an area where the FFA "really helped out." Especially the two years she served on the Massachusetts' state officer team.

"Through the FFA I really developed a good approach to groups, public speaking and being comfortable speaking in front of groups, also developing the leadership and confidence of taking it on."

This confidence was found to be even more precious later on. After an inter-

NOW let me get this straight. All this horsemanship, back packing, bird stuffing, and what-all, all the jobs you've held—you've done that already?" I tried not to act overwhelmed.

Maura Longden smiled patiently and shook her head "yes" as she rotated the slide holder. An image was immediately projected onto the wall. It was a shot of Maura carrying a backpack stacked so high it crawled out the top of the photograph.

"Eighty-pound packs weren't unusual when I worked for the Appalachian Mountain Club—that was in the White Mountains in New Hampshire." She began to turn the slide once again. The next slide showed Maura down by a quiet lake, explaining a beaver's living habits to a group of attentive hikers. Next an image of Maura at the hut she was responsible for along the Appalachian Trail. Then yet another slide illustrating yet another experience.

Maura Jane Longden of Holden, Massachusetts, 1977 National Outdoor Rec-

reation Proficiency award winner, is building a career in recreation—almost entirely from practical experience. And at the age of 19, she has a good start toward her goals.

"I really don't remember ever wanting to be anything, to do anything, but work for the Park Service. It's always been a goal." She says for that reason she's always independently worked on field studies and been interested in hiking and the outdoors. "All my interests sort of revolved around the woods and natural history."

Maura, like many young people, always wanted a horse. It's likely that her love for the outdoors began a rapid amplifying process when her wishes for a horse were granted at the age of 13. She began to spend increasing amounts of time at the barns, caring for her horse as well as others, even teaching the skills of horsemanship. An interest in trail riding followed and competing occasionally entered the picture, drawing her more and more into the outdoors.

esting summer as an all-around maintenance, research and guide person at Acadia National Park on the coast of Maine, Maura took a summer job with the Appalachian Mountain Club (AMC) of northern New Hampshire.

"If . . . he gets into trouble, I've got to help find him and carry him off."

The job entailed a good deal of serious responsibility at the base camp as part of an information and receiving team that worked with the influx of hikers.

"We had people come to the mountains that would say 'I want to plan a ten-day backpacking trip. Where should I go?' Here you're faced with these people you've never met, you don't know what kind of physical condition they are in, what kind of equipment they have, or how much hiking experience. From these impressions you have to sum up what this person's like and what he can handle. Where should I send him for ten days? Where is he going to have a good time and not get strained by it?"

It was difficult at times. She had to know the trails and be pretty comfortable with her knowledge of what the mountains were demanding. And her additional duties of search and rescue provided another dimension.

"I've got to figure that if this guy's going up a trail that's too difficult for him and he gets into trouble, I've got to help find him and carry him off the mountain," Maura said firmly, adding that the White Mountains, being very big though well-used, can cause rough search problems. "If you lose someone, it's hard to know where to start looking for them."

She was full of stories—about the

Boy Scout leader who took his troop over a closed trail—and had to be airlifted out of a 15-foot crevasse. Or the one member of a trio of youthful well-equipped hikers who mixed hiking with a hangover and more booze while on the trail. He lagged behind and was found dead the following morning—half-covered by his tent, three inches left in a half-gallon bottle of vodka—a victim of hypothermia, or loss of body heat. Maura had to help carry his body the several miles back to the base camp.

"Most, in fact all, of the rescues we had to conduct could have been easily avoided," Maura said, citing the uninformed people as major problems.

The AMC also runs a system of huts in the White Mountains and elsewhere for use by the public. During that same summer, Maura served as caretaker of a hut aptly named for nearby Lonesome Lake. Her job involved making sure the hikers respected the AMC's property, checking for illegal campsites and perhaps doing some interpretive work for those passing through.

"My only communication in the hut was my daily 8:00 a.m. radio call when they would give me the weather and ask if I needed anything," Maura said. The base camp was some 40 miles away and her nearest neighbor, Lilly, took care of a hut eight miles down the trail.

Maura was alone with the moose, beavers, birds and bears for up to five days at a time, including the Black bear that tired to eat the porch of her hut for breakfast one morning. "I heard a noise on the back porch and thought it was a hiker—I went back and there was the bear with one of our steps in his mouth." Both bear and human, being properly tolerant, simply eyed one another, then each went their own way.

"I had time for a lot of thinking. Spending that time up there actually reaffirmed my desire to stay with recreation and resource management."

It also gave her a valuable perspective when applied to education of the public as a part of resource management.

"It would be great to be a hermit sometimes, but you aren't in the woods too long until you realize that to do any good you've got to come out of the woods and talk to the people about the woods and care of them. If you can get people to appreciate where they are—the general surroundings—you've won half the battle. Then it's a little easier to concentrate on the environment itself.

"One thing I kept in mind and passed along to my guests was that they should hike to *hike*, not hike to *arrive*."

"They should hike to hike, not hike to arrive . . . not just to get someplace."

You want to hike to be out there seeing what there is to see, not just to get some place—you could miss the whole trip by trying just to get there."

Where is it from here for Maura? Well, for this summer she has hopes of working for Sequoia National Park in California, or Yellowstone in Wyoming. The jobs she has applied for there are in resource management.

"I would sort of like to take that next step up—even though I've had some job offers locally—two to go with the AMC again," she says. It's important to her to keep progressing toward her goal, utilizing her wide range of practical experiences in outdoor recreation. She's proud and happy with the steps she's taken so far.

"All the jobs I've had have been age-related and they've all been jobs I wanted to do, not that I've had to do. The things I'm doing when I'm working are exactly the things I'd be doing if I wasn't working. My vocation seems to be exactly the same as my avocation."

What did she do right in her pursuit of outdoor recreation that makes her now able to say that? Is it desire, determination?

"I don't know if you'd call it determination or stubbornness," she smiled, "but it's an example of the difference with vocational education and the FFA . . . the majority of those who are in it know what they want to do with their lives while still in high school."

Currently college doesn't appeal to Maura and is not in her immediate plans, but she hasn't ruled it out completely. "If I find that to reach my goals I need a college education, then I'll get it, but I'd like to see if I can achieve my desired employment goals through practical experience," she explained.

"If, I think, you present yourself correctly, sell yourself, you can do almost anything."

A young rider gets a lesson in hoof care from watchful instructor Longden.





Hydroponics

See how
the garden grows . . .
without soil

By K. Elliott Nowels



Top left, a cucumber bears its fruit from its bed of gravel. Note plastic clips with strings attached to keep the plant upright. Above, young cucumbers get a good start in their self-contained environment. At right, in another house, some experimental plants grow in troughs with water-borne nutrients for feed.





The tanks of recycled water are checked often for nutrient strength. Fresh chemicals are added about once per week.



A group of vine-ripened tomatoes, bearing the seal of the Georgia Hydroculture complex, coolly await their consumer.

CLEANLINESS is the first thing that strikes you when you enter the greenhouse. No weeds peeking around the cucumber plants, no water hoses laying around, no soil . . . wait a minute. No soil?

No soil. Therein lies the big difference between vegetable production at Georgia Hydroculture, Inc., reported to be the largest hydroponic facility in the world, and other vegetable-producing greenhouses. It's also the reason the system has been getting more attention in these days of increased pressure on farmland and higher labor costs.

Simply defined, hydroponic growing is the cultivation of plants without soil, using a water-borne nutrient solution. One simple form of hydroponic culture is the growing of a sweet potato in a glass of water. The spud gets what it needs from the water.

Hydroponics, even on a commercial basis, is not all that new. During World War II and the Korean War, the soil-less technique was used in sometimes huge complexes to supply fresh vegetables to the armed forces. These gardens, although using the hydroponic-feeding technique, were outdoors, lacking environmental control. Georgia Hydroculture, in Byron, Georgia, adjacent to Interstate highway 75, needs not fear the uncertainty of the weather, instead attempting to maintain the perfect environmental growing conditions for their plants.

"We know what the plant needs and we try to give them just enough of their requirements to grow a healthy plant," said K. V. Ravi, crop production manager. "These plants are not handicapped in any way."

He says that hydroponically grown vegetables can claim several advantages

over their conventionally grown counterparts. Superior taste, quality, appearance, and extended holding quality of hydroponic vegetables, are cited as being the improvements made possible by giving the plants these optimum feeding and environmental conditions. The ability to grow anything that grows in soil also allows marketing off-season. Tomatoes, cucumbers and lettuce are the main hydroponic crops currently, but experiments seem to be ongoing.

"I did grow one crop of cauliflower and broccoli—a fantastic crop—so I'm trying a second time," said Ravi. "I would like to try all year 'round to see how it grows, then we can probably grow it at the times it does best." He said the broccoli was yielding about three pounds per plant.

Most plant life at Georgia Hydroculture, Inc. begins from seed. When the seedlings are the right size for transplanting, they are moved from their seedling beds into growing beds of light, sterilized gravel. Twelve inches deep and lined with vinyl, these beds run the length of the 26-foot by 123-foot greenhouse unit. Water and nutrients come out of a 3-inch perforated pipe along the entire length of each trench. After the plants have taken all the water and food they need, gravity pulls the remainder to a holding tank at one end of the unit. When the automatic switch comes on again, the process is repeated. About once a week the water in the tanks is tested for nutrient value and powdered nutrients are added.

These feeding and watering practices, combined with summer and winter temperature control that is nearly automatic, make for substantial savings in labor and water. It is estimated that 15 tons of tomatoes can be produced hy-

droponically using 175,000 gallons of water on a recycle basis. This compares with a possible water requirement of 650,000 gallons of water to raise only four tons of field-grown tomatoes.

Probably the biggest hang-up currently with increasing hydroponic production in the United States is the high cost of energy, and initial starting capital investment needed. Building the houses to produce the vegetables is one problem and keeping them at least 60 degrees Fahrenheit through the winter may be an even more expensive one. On the other hand, future pressures on farmland and possible losses in topsoil could eventually make hydroponics increasingly economical and cause it to become the futuristic answer to food production problems that some proclaim. Many management problems remain to be overcome.

"We have people working in every five greenhouses and their job is from planting to the plant's completion," said Ravi. "It's a fulltime job, depending on the crops. Tomatoes and cucumbers, it works out that way, but lettuce doesn't need that much labor. Another thing about lettuce, broccoli and cauliflower is you don't have to heat the buildings as much—they are a cool crop, so you can save on gas a lot."

Energy and labor are important factors to consider in the operation of a system of this nature, especially since it is largely untried on this scale, according to Ravi.

"You really have to learn a lot about management," Ravi sighed. "You have to save money, save labor, save gas. You have to change every day according to what happens. That's the only way we can make a profitable business."

Five Great Farm Paintings

Art is the right hand of nature. The latter only gave us being, but 'twas the former made us men.—Schiller.

By Gordon West

THOSE words of the great philosopher could have been inspired from viewing some of the immortal paintings brushed by the masters in the exciting field of art. Perhaps his soul was stirred when he stood before some great paintings showing man and nature in all their glory. Some classic works of art have nature and agriculture as the main theme—and, the “sons of the soil” are very near to the true appreciation and knowledge of living, growing, vital things.

A masterpiece of painting can be poetry on canvas, an expression of spiritual beliefs in oil or water color. “The Angelus” and “Song of the Lark” are art examples that fit that description.

Consider these five great farm paintings along that line of thought:

THE ANGELUS—This beautiful picture of a farmer and his wife is the work of our greatest farm artist—Jean Francois Millet. “The Angelus” (1859) shows a peasant and his wife. It is sunset and the blues and purples of evening steal across the sky and the horizon. The little village church is silhouetted against this vivid coloring. The couple (Millet’s parents) is shown with bowed head as the prayer of the angelus (angels) is said. Their tools are laid aside; work is done. You see the Christian beliefs, the hard work, plain looks and clothes, beautiful country scenery and the honesty and contentment of peasant life. Some critics say Millet’s people are too ugly and his paintings weren’t bright and

happy but this “Peasant Painter of France” was a realist, showing farmers and their lives as they were.

SONG OF THE LARK—Jules Breton, a world-famous artist, ranks near Millet as the greatest farm painter. He was a Frenchman who painted peasants. He is called “The Poet Painter of France.” Breton liked to paint the farm girls of Brittany as they displayed such graceful forms and sincere faces. One of these girls is shown in the “Song of the Lark” (1885) on her way to work in the fields. She pauses to see and to hear a lark. Her face is turned upward and in her strong hand is a sickle. She is barefoot and she is gowned in simple clothes. You see the rising sun, green fields and the haystacks. Her figure shows strength, gracefulness and beauty. “Song of the Lark” means the song of joy within the heart of a Christian girl who loves nature and the outdoors. She is in harmony with her life, with her surroundings and with her God.

THE HORSE FAIR—This is the greatest horse painting in history. And it was a Frenchwoman, Rosa Bonheur, who created it. She is called the greatest painter of animals ever and our greatest woman artist of all time. In 1953 came “The Horse Fair” work and her national and international fame was secure. Shown on a huge canvas (96¼ inches high and 199 7/16 inches wide) are heavy white and sorrel Percheron horses being ridden and led by men wearing colorful blue clothes. This classic



Jules Breton's "Song of the Lark," courtesy of the Art Institute of Chicago.

work is full of power—the strength of the muscles of huge horses, strong men, vivid colors, the movement of animals, men and trees. One can feel the action! And one can view this painting today in New York City at the Metropolitan Museum of Art.

INSIDE OF A STABLE—George Morland of England is considered by most art critics as the greatest painter of farm scenes. He is also remembered as “The Painter of Pigs.” “The Inside of a Stable” shows a farmer leading two horses and a pony into a barn. There is perfection of detail—sunshine falling on green leaves of trees near the stable door, sunlight falling on straw, dark corners, sunlight peeping through stable windows covered with torn sacks and rags, the farmer, the pony, farming items hung on walls. There also is beautiful coloring of darks and lights, showing the effect of the old Dutch art “masters.”

THE SHEEPFOLD—Charles Jacque is called the greatest painter of sheep. In his picture he shows a typical French barn of the day that protected the sheep from the weather, especially in the wintertime. One can see all sizes of sheep and also a shepherd at work. The theme of this beautiful picture is contentment. Prominent in this classic are mother sheep with their white-colored young. “The Sheepfold” (1870) shows sunshine and shadow with great effect. Jacque pictures very well the massive strength of the barn, with large crossbeams and thick stone walls, feed racks, mangers, tub of water, straw bedding and many animals, quiet and at rest. Dark brown colors are relieved by white lambs, yellow sunlight and straw, a red rooster, and the manger and the bright blue of the shepherd’s coat. The viewer can feel great peace and quiet and contentment.

These five great rural works of art showing God’s great works and humble farm people are really “poetry on canvas.”

“The Horse Fair,” courtesy of New York Graphic Society, Greenwich, Connecticut, and The Metropolitan Museum of Art, gift of Cornelius Vanderbilt, 1887.





YOU TALK, WE'LL LISTEN

PCA... totally committed to agriculture for over forty years. Totally committed to our customers... their plans, their goals. When you have a plan and need financing to make it happen, talk to us. We'll listen.



PCA is proud to sponsor the development of your new FFA STUDENT HANDBOOK.

Maybe what your farm needs



The Honda XL's.

Try some Honda horsepower. The kind you get in our XL-75, 100 and 125.

On-road or off-road, they do the job. Whether you're riding the north 40 or doing 40 down the highway. They're agile, quick and reliable. And they don't eat much fuel either.

All three Honda XL's are the result of excellent breeding. At their heart is the world-famous Honda four-stroke, overhead-cam engine. So you know they deliver. For a long time.

And you know when you're riding a Honda, you're out in front. Because they're each loaded with features. Long-travel shocks with five-way adjustable springs keep your power connected to the ground. You've got a positive-shifting

is a little more horsepower.



transmission with five speeds. And primary kick starting means you can start in any gear—with the clutch disengaged.

The XL's ride smooth, thanks to oil-dampened forks. They can take bumps, too, because they've got high ground clearance and a sturdy skid plate. They don't cough or wheeze—thanks to a snorkel-type air cleaner under the seat, clear of water and dust.

And these Honda horses are intelligent. The smart-looking instrumentation includes—speedometer, odometer, plus neutral, high-beam and turn indicator lights.

You can find 'em just down the road at your nearby Honda dealer. He's got a stable full of Hondas just waiting for you.

HONDA
GOING STRONG!

THE CHAPTER SCOOP

NEWS, NOTES, AND NONSENSE FROM EVERYWHERE

by Jack Pitzer

A special thank you note from *Medicine Lake, MT*, FFA was sent to their PCA for helping buy the new Student Handbook for their members.

N-N-N

There's quite a plan underway to expand the Ag Career Show that's held at the National FFA Convention. It'll be in the new Exhibition Hall and open to FFA sponsors and advertisers.

N-N-N

A one-page newsletter is put out for *Ysleta, TX*, Alumni Affiliate members.

N-N-N

Lots of public speaking, "parley," Creed and extemporaneous speaking contests going on around the nation. *Nevada Union, CA*, Reporter **Chris Rykert**, sent news of his chapter's successes.

N-N-N



Battle Ground, WA, had a canned food drive for Salvation Army. They collected 1,231 cans.

N-N-N

Union Camp Corporation paid *Effingham County, GA*, Chapter \$1.00 per bushel to pick up the bumper crop of pine cones on the corporation's trees. FFA gathered 2,666 bushels.

N-N-N

Stardom has hit *Enumclaw, WA*, members. They were at the fair where a TV commercial for Washington Dairy Association was being made. FFA'ers actually held the cattle who appeared in the commercial.

N-N-N

Roslyn, SD, FFA newsletter is titled "Have We Got News For You!"

N-N-N

Any teachers in school who had been FFA'ers in their high school years were invited as chaperones for *Monona, IA*, Christmas party.

N-N-N

Labor force for a Palm Sunday newspaper pick up in community was *Baxter, TN*, FFA. Funds go through Optimists to Children's Hospital.

N-N-N

A bake sale, plant sale and car wash will be the money source to take *Hunterdon Central, NJ*, members on a trip to area amusement park.

FFA'ers in Arizona get to try their skills in 15 different contests, some of which are not necessarily judging contests. Part of university field day. Some ones you might not know of are job interview, entomology, ag salesmanship and ag economics.

N-N-N

Chenango, NY, Area BOCES Chapters are planning a clean-a-thon. That's pick up along Route 12.

N-N-N

Mike Semas, Mark Cardoza and Marvin Douglass of *Hanford, CA*, Chapter won the sectional co-op quiz and will go to state.

N-N-N

At *Mississinawa Valley, OH*, banquet, the Young Farmers presented scholarships to **Ron Kaffenbarger** and **Victor Garza**. Then the Young Farmers Wives presented scholarships to **Leanna Brooks** and **Jennifer Schmitz**.

N-N-N

The four members of *Worcester, MA*, fruit judging team ranked 1-4 at state.

N-N-N

State Secretary in *VA*, **Sammy Bartlett**, uses his magician hobby to keep audiences entertained and involved in his FFA presentations.

N-N-N

Cloudercroft, NM, members had fun talking with State President **Benny Wooton** about their projects and FFA activities when he visited their chapter.

N-N-N

Center pieces for school sports banquet were made by *Cheney, WA*, FFA.

N-N-N



In the Iowa vo-ag dressed beef show, **Curt Downing** of *Orient-Macksburg* Chapter, took Grand Champion.

N-N-N

Covington, LA, planted oak trees on their school campus.

N-N-N

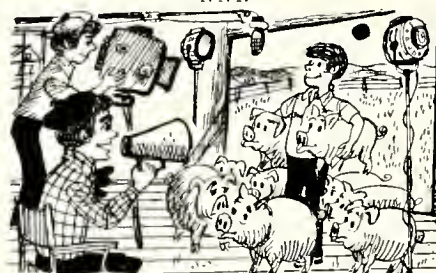
A breakfast sponsored by *Somonauk-Leland, IL*, FFA attracted farmers to get interested in FFA Alumni and in machinery identification kits.

N-N-N

Excellent six-page newsletter, printed offset, received from *Menno, SD*.

Sandy Carlson is supply salesman for her *Housatonic, CT*, Chapter. She sold 15 jackets to new members by sending a letter to freshmen students' parents just before Christmas.

N-N-N



"We have dusted off our movie camera and hope to make a movie of members' projects and activities for our parent-member banquet." *Hampton, IA*.

N-N-N

An all-out assault on beef show trophies was made by *Chowchilla, CA*, members. They show six breeds.

N-N-N

Members of *Uniontown, KS*, FFA who sold \$100 worth of citrus got a free pizza feed. Those who sold \$200 worth got to bring guests.

N-N-N

Southern FFA in *Harwood, MD*, had a tobacco display in a mall explaining growing, hanging and stripping a tobacco crop in their state.

N-N-N

And *Catoctin, MD*, demonstrated apple cider pressing at a mall in their area.

N-N-N

The BOAC committee has spearheaded work of *Comanche, OK*, members in developing a new park. Work includes marking the tennis courts, building fence and a parking lot plus chores like painting and mowing.

N-N-N

Advisor Marker caught a steelhead on the *Forest Grove, OR*, FFA fishing trip.

N-N-N

Allen Heishman reports success of *Mount Jackson, VA*, FFA demonstration of parliamentary procedure to other school club officers.

N-N-N

Mannington, WV, FFA'ers are proud to have raised flag at every home football game.

N-N-N

Eaton Rapids, MI, members are landscaping the hospital.

N-N-N

Where's the news, notes or nonsense from your chapter? Send it to Scoop, Box 15130, Alexandria, VA 22309. It's as easy as licking a stamp!

Seeing is Believing

With Scanning Electron Microscopy

SCANNING electron microscopy (SEM) and energy-dispersive X-ray (EDX) analysis combine to form a powerful tool in research on the chemical finishing of cotton.

With them scientists can look at the cotton fibers, even into them, and actually see the results of their research. They can see what happens to the physical characteristics of the fabric and individual fibers and they can see where the treating chemicals have lodged. Together they help the scientist eliminate an element of "guesswork" or "assumption" about the results of his research.

Chemical finishes are commonly used to improve or impart to textiles such properties as wrinkle and flame resistance or water, oil and soil repellency.

The physical characteristics of the fibers and the location and distribution of the finishing chemicals in relation to the structural elements of the fabrics are important to both the effectiveness and the durability of the finish. However, because of the limitations of optical microscopy and transmission electron microscopy, scientists were never certain about where and how the chemicals were deposited.

SEM provides a means of directly studying samples to observe surface changes resulting from the various chemical finishing agents applied to the fabric. In SEM a specimen is bom-



An electron micrograph of the surface of a fabric treated with flame-retardant.

barded with an electron beam. Secondary electrons emitted from the bombarded specimen are collected to form the SEM image in a form readily perceived by the unaided eye. Unlike other forms of microscopy, SEM offers an image with remarkable resolution and depth of field so that the specimen can be studied in great detail.

At low magnifications (to about 1000X) SEM micrographs can show chemical deposits that may clog or plug up the weave of a fabric to make it harsh or stiff or less able to "breathe."

At higher magnifications, SEM micrographs can show fascinating, almost three-dimensional detail. For example, micrographs can show the scientist where and how chemicals are deposited on the surface of fiber, whether the deposit is thick or thin, smooth or rough, complete or patchy. SEM micrographs also show a wide variety of conditions

such as abrasion damage and characteristics of fire retardant fibers after they are subjected to flame or intense heat.

Although SEM provides images of surfaces only, it can be used to study internal fiber structure. To do so, the scientist must cut sections of fiber, yarn or fabric and examine the cut surfaces. This will expose the inside of the fiber in great depth and detail.

When EDX analysis is used to identify, in a specimen under examination, a specific element (e.g. phosphorus in a flame-retardant cotton fabric) an X-ray "map" results. When superimposed over the micrograph of the cross section, the "map" shows precisely where the element is located and how evenly or unevenly it is dispersed throughout the section; the scientist can immediately determine results of his efforts. (*Reprinted from Agricultural Research, USDA.*)

A single, untreated cotton fiber at high magnification.



An untreated cotton fiber showing abrasion from washing.



Sleep Comfortably In Camp



The sleeping bag above has a washable liner inside held securely with internal ties.

By Russell Tinsley

Ingredients for a good night's sleep in camp; a foam mattress, left, and a conventional-sized sleeping bag.

WHEN I was young I can remember rolling in a scratchy blanket and sleeping directly on grass, gravel or even rocks. That I recall such seemingly insignificant incidents tells me something. I was uncomfortable. But I dared not complain.

Age and wisdom have tempered my desire to prove something not worth proving. I make no apologies for wanting restful sleep in camp. Why should I suffer to impress someone who isn't impressed at all? As I look back I realize that no one cared whether I shivered in a blanket and awoke the next morning with sore muscles.

Accept my experience for what it is worth. The joy of getting outdoors and spending a night under the stars is relaxation and fun. Joy and misery, believe me, are not synonymous.

The secret for sleeping comfortably in camp is a sleeping bag, which is much superior to an improvised bedroll, quilts or blankets and sheets rolled together.

But don't be misled into buying the first sleeping bag you find or one that is on sale, assuming that any bag is acceptable. That is like getting a small foreign car to pull a heavy livestock trailer. Sleeping bags are de-

signed for different purposes. *How* and *where* one will be used are the most important considerations.

Also keep in mind that a sleeping bag is a long-term investment. Take care of one and it will last indefinitely. I own a mild-weather bag that is 23 years old and is still plenty good. Simple math tells me I have been enjoying that bag for about one dollar a year. Now that's a real bargain!

Yet you can't measure comfort and practicability in dollars and cents. A conventional bulky bag, for instance, is not for the backpacker. He needs one of those lightweight compact models. And for this he pays more.

With few exceptions a sleeping bag is like anything else; you get what you pay for. If you are shopping around and you find two bags similar in appearance yet one costs twice the other, there is a reason. The type of filler material is the primary factor for the price differential. The way the bag is constructed—outer shell, zippers, etc.—also affects the price.

The function of a bag is to trap air which in turn retains whatever heat is generated by your body without allowing the accumulation of moisture, which

means it must breathe. This ability to trap and hold air is determined by what kind of filler material is utilized, how much of it, and how it is all put together.

This insulating material will be either nature's—down, feathers, or a combination of the two—or man-made fibers such as acrylic, polyester and acetate, sometimes in combination with wool. The manufacturer's label always should tell the bag's contents, what kind of filler and how much.

Down, taken from mature northern geese, is the most expensive, yet it also is the best, trapping more air per pound than any other material. Small, compact bags are made from down since less of the filler is required and it has a unique liveliness which allows it to be rolled tightly into a small package, yet it will quickly spring back to its original fluffiness when unrolled.

The one drawback to down is it is slow to dry and a wet bag loses its insulating properties. In rainy weather or in a boat it needs to be protected. I like to carry mine in a heavy-duty plastic yard bag sealed tightly.

Bags with synthetic fillers can be
(Continued on Page 38)

If you want to take charge...



Taking charge is what Marines have always done. If you want to learn how it's done we'll get you started. We'll put you in great shape, train you in a valuable job skill and cut you in for a share of the pride we feel. Start taking charge today...mail the card or call 800-423-2600, toll free. In California, 800-252-0241.

Maybe you can be one of us.



The Few.
The Proud.
The Marines.

Sleep Comfortably

(Continued from Page 34)

made just as warm as down but much more of the material must be used, which adds to the bulk, maybe 2½ times as large. But where added weight and bulk are not critical factors, a bag with synthetic filler is the better buy. It is not as expensive. And some people are allergic to down.

As for construction, quilting is commonly employed to keep the filler material from shifting without compressing it. You find this workmanship pri-

marily in bags made for mild-weather use. Much better insulation is attained by confining the filler in triangular, square or round tubes, then overlapping or perhaps laminating the tubes to do away with through-seams which permit a loss of heat. Loose overlapping also traps more dead air to improve the insulation.

The outer or protective shell likely will be made of tough, tear-resistant nylon—usually used for down bags—or other coarser materials, just about as rugged. Some bags will have other features such as inside tapes or tabs, for securing washable or disposable liners; an underslung pocket to contain a mat-

tress (which, incidentally, adds to the weight); and a little tent-like flap that can be erected over the head of the user, although in a shelter this feature is of no value whatsoever.

When shopping for a bag, don't take the advice of others. It is a very personal choice in that no two people will produce the same amount of heat or in the same pattern. In short, some people are more "cold natured" than others. While one might be comfortable in a bag filled with five pounds of Hollofil II (formerly called Dacron) in near-freezing weather, someone else might be miserable.

While virtually all bags are rated by the total weight of filler, the size and shape of the bag will determine how well this filler accomplishes its job. For all-purpose use, such as carrying a bag in a vehicle for typical overnight camping, select a roomy bag with as much filler as you can afford. You always can open a bag if you get too warm, but when the temperature plummets you are at the mercy of the cold.

Other than the bag you need something to put beneath it. A mattress or pad not only makes for more comfort, cushioning the shoulders and hips, it adds insulation under the bag where body weight compresses the filler, causing it to lose some of its effectiveness.

The cheapest pad is a chunk of one inch or thicker foam of adequate length and width, available for a modest price at most discount and department stores. Special-made pads, normally found in sporting goods stores, have tough outer-shells for protection. Pads are lightweight and better insulators than air mattresses but they are bulky. Air mattresses also must be filled and deflated each time you move camp and they require some protection from sharp objects. If you buy an air mattress, be sure to also get a small emergency repair kit. Air-escaping holes have a way of developing at the most inopportune times.

Kansas City Meeting Brings New Organization A Step Closer

Some people think the recent meeting in Kansas City, Missouri, to discuss the feasibility of a post-secondary student organization was a lot like the first meeting in Kansas City in 1928 to form the FFA.

This seminar gave post-secondary educators an opportunity to exchange ideas, discuss the subject and to lay groundwork for a potential national student organization. There were also 17 students in attendance from several already organized state groups of post-secondary students.

This was the third national seminar for educators interested in post-secondary education in agriculture. The USOE, in cooperation with Cobleskill, New York, Agricultural and Technical College faculty, sponsored the first in 1966.

The second seminar was conducted by the USOE and Minnesota Department of Education in 1973. At that time faculty recognized the potential value of a national student organization and recommended the development of one.

A steering committee of educators has continued to consider and investigate the subject. This seminar in Kansas City was a result of their work, the rapid growth of programs



Howard Sidney, center, of Cobleskill faculty, was chairman of the seminar.

now established in over 420 institutions and a survey of post-secondary educators to get their inputs as to the need for, desire for, operation of and urgency for a national student organization in the thirteenth and fourteenth levels.

This conference was sponsored as a special project of the National FFA Foundation by White Farm Equipment Company.

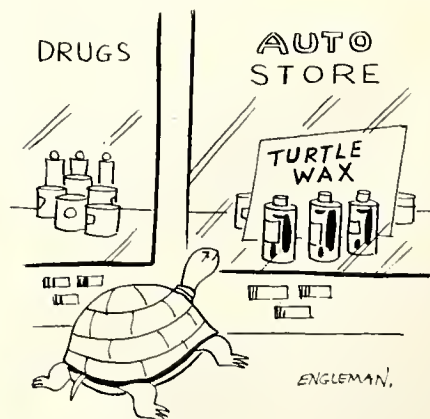
The steering committee, bolstered by the addition of several students, will do the groundwork planning for a constitutional type convention to be held in 12 months.

Attendees were very optimistic at the Kansas City meeting and seemed to have a desire to make progress toward formation of an organization.

Students attending the seminar were anxious for a national organization.



There were just under a hundred post-secondary educators at the seminar.



THE DIFFERENCE BETWEEN OUR DUAL-PURPOSE MACHINES AND THEIRS IS SHOCKING.



Dual-purpose motorcycles are expected to perform with equal agility both on and off the road. Few do.

One glaring exception is the 1978 Yamaha DT Series.

Our exclusive Monoshock rear suspension system is custom made for the on-again, off-again requirements of the dual-purpose bike.

This single nitrogen/oil shock absorber delivers extraordinary traction and stability. For solid control on the trail and solid comfort on the street.

Other DT features are every bit as impressive:

Tough, reliable two-stroke engines with plenty of usable power and low end punch.

Rugged five and six-speed

transmissions to make the most efficient use of that power.

A lighter motocross-type frame; center mount exhaust system for better ground clearance; and Autolube, which automatically (and economically) adjusts the oil/fuel mixture to engine load and speed.

We also make a non-Monoshock model, the DT100, that's in between mini and full-size.

Top to bottom, front to back, the 1978 DT's are strong, powerful, reliable, agile and versatile.

Because their one purpose is to be the ultimate dual-purpose machine.



DT125



DT175



DT250



DT400

YAMAHA

When you know how they're built.

The Federal

This program is helping students develop skills and learn where the jobs are in natural resources.

By Gary Bye

At left, Debbie getting instructions from Mr. Arnold before putting the chain saw to work. Below, the forestry class receiving on-the-job training.



FROM beneath her bright yellow hard hat, Debbie Owens surveyed the tree in her path. To a casual observer, the Douglas Fir of less than a foot in diameter might have appeared like just another small tree in the forest. To Debbie, it was a major stepping stone.

This was the first large tree the 4'11" junior would ever fell, although she had been handling a chain saw for two weeks as part of instructor Bob Arnold's forestry class. At first she had been frightened of the noisy machine. Now with Arnold at her shoulder she displayed a steady confidence in her ability.

Slowly she urged the chain through the tree until finally, yielding to its fate, the tree crashed to the ground. Now, her face covered with sawdust, Debbie triumphantly cocked her head to the side and took the only reward available for the arduous chore. "Timber," she cried, imitating the traditional cry of the burley woodsmen who had first worked the forest in which she now stood.

To Debbie the event was the kind she would later recall as one of life's highlights. After school she would return to the condominium apartment she shared with her mother and two sisters. The apartment lacked a yard for recreation.



Way to Outdoor Careers

However, the class, begun four years ago at Thomas Jefferson High School in Federal Way, Washington, is not solely for therapy. Both of Bob Arnold's classes, forestry and fish and wildlife, are filled with students who hope to find eventual employment in one of the disciplines learned through the classes. Many go on to further training at college or technical school levels.

Forestry and its related industries, according to Arnold, are the leading employers of workers in Washington State.

When *The National FUTURE FARMER* visited Thomas Jefferson's vocational agriculture program, located 30 miles south of Seattle, classes were scheduled for a day of outside activities. Typically, the class spends 70 percent of its time in the field. On the agenda for

man has filled them with debris."

To renovate the streams, the students remove all impassable barriers to the fish, then reconstruct the streambed so it resembles a natural state. The project requires basic skills in forestry, plant identification, and a knowledge of stream flow principles and fish physiology. It also requires the student to gain a sense of pleasure from wading knee deep in cascading water, from moving mammoth logs up and down steep stream banks, from packing tools in and out of inaccessible places and doing it all in weather most people would consider fit only for the most hardy.

The love of the out-of-doors runs through the veins of most of Arnold's students. During brisk autumn days, the class spends five to six weeks aiding fishery department personnel at the state hatcheries. Students milk the eggs from the ripe fish. The fresh eggs are weighed and stored until an eye begins to form. Once the eggs are eyed-out, they are dumped into incubators. The fry are later moved to pans and finally the young salmon are moved to holding pens. Students who do the work without pay are treated like other employees and are expected to perform all of the necessary duties required to guarantee the survival of the growing salmon.

In addition to the necessary procedures for raising the fish, students are able to assist University of Washington scientists as they mark fish for later identification and as they take samples of eggs to certify them as disease-free. "For many of the city kids, it's the first time they have contact with an animal," says Arnold.

Exercises that put students into positions where they have to learn through actual experience are trademarks of the classes Arnold teaches. Long term plans, calling for a large land laboratory where students will actually manage several acres of woodlands, raise Christmas trees and raise fish, have already been drawn up by the foresighted ag teacher.

The project's progress, as with most large school undertakings will depend upon school financing. However, a piece

of existing school property offers all the necessary physical requirements, and even now is providing students with the opportunity to practice their forestry skills. Each year ten acres are selected for extensive management, including heavy thinning. The school's property increases in value while the young foresters learn the practical skills that can lead them into rewarding jobs.

"Between 25 and 30 percent of the graduates of this young program have gone on to find jobs related to the skills learned through these forestry and fish and wildlife classes, or have enrolled in either university or college classes to further their understanding of natural resources and their management," says Arnold.

One current student who would like to follow that route is the FFA chapter's Vice President, Brian Crosman. "We learn the importance of building balanced forests," he says. "These classes give us the chance to see if we really like working with natural resource jobs before we go to college or get a job and find out too late that it really isn't what we want. The classes we're taking are also the kind you can enjoy while you learn. We work together and have fun at the same time.

Brian says all forestry and fish and wildlife students are members of the FFA. One of the most popular of the chapter's activities is the annual logging contest put on by the chapter. Seven high schools attended last year to compete in events such as the log roll, the log chop, the four- and two-man log carry, the pole climb (the best time last year was 5.4 seconds), the ax throw and a hurling contest.

The overall success of his classes and the FFA organization at Thomas Jefferson High adds support to Bob Arnold's contention that the study of natural resources is one area of agriculture that deserves increasing attention by our country's schools. By directing his instruction in agriculture to the areas that most fit his community, Arnold has earned respect for his program and provided the kind of training that is helping his students find rewarding futures doing the things they enjoy most.



One program attempts to return streams to their natural state.

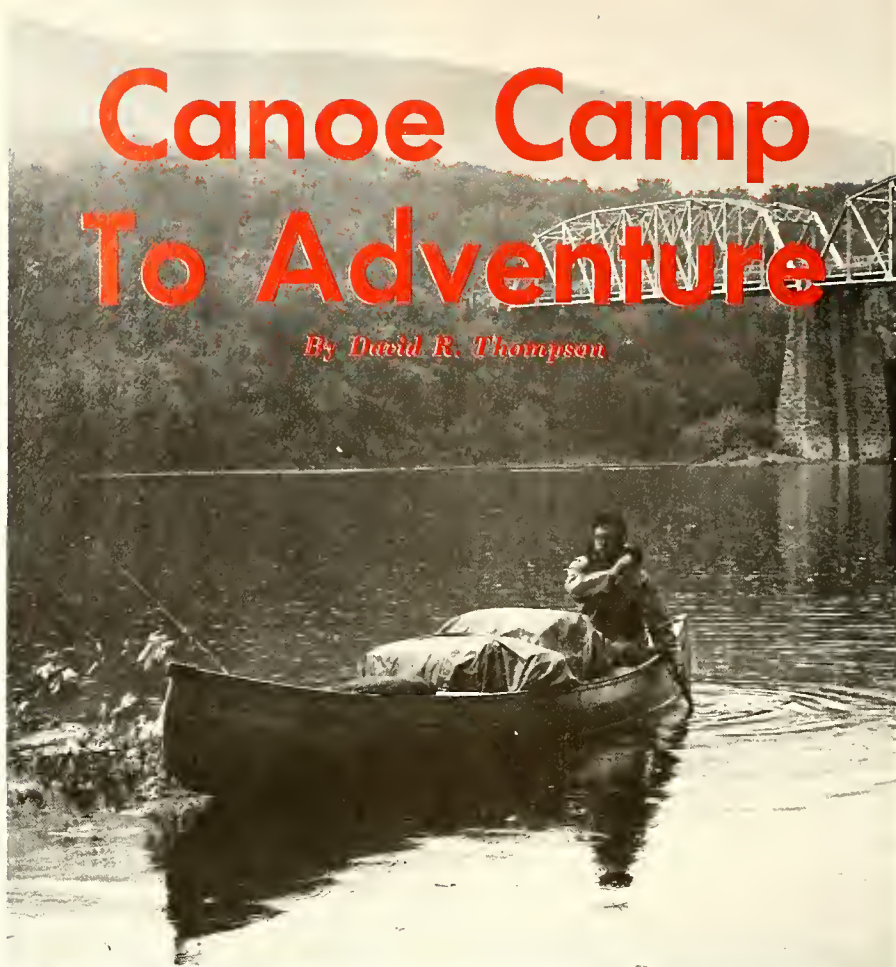
the day was the continuation of a stream renovation program. Free running streams, which feed into Puget Sound are cleaned by the classes in an attempt to return them to their natural state. Most of the streams have been void of salmon runs for many years, mostly because of man's misuse of them.

"With one small gravel box incubator, a small stream can produce over 100,000 salmon," says Arnold. "We've estimated that there are hundreds of small streams still capable of producing salmon that are without fish because

OUR overnight canoe trip was part of a celebration. Bob and I had just graduated from high school and as we launched our loaded canoe into the Conodoguinet Creek in south central Pennsylvania we welcomed the freedom that a two-day float promised. When I took that first paddle stroke, I was captured by the same sense of adventure that early frontiersmen must have felt being the first white men to explore America's western rivers and streams.

From my seat in the stern, I steered the aluminum canoe around rocks and weed patches while Bob cast a hook baited with a nightcrawler for smallmouth bass. He allowed the bait to float into the pools behind the rocks and beside the weed patches and soon caught several nice bass.

When I saw that Bob was putting fresh bait on his hook, I took the oppor-



The author paddles his 17-foot aluminum canoe during an overnight trip.

tunity to take a series of rapid and deep strokes with the paddle. The wooden blade bit into the greenish water and I felt muscles flex as they pulled the canoe forward. I knew that vigorous canoeing was good exercise and I had energy to burn.

A stringer of smallmouth bass (left). Note author's camping gear is centered in the canoe and protected by a waterproof tarp. The son wears a life preserver (below left) on this father-son overnight trip. Home-fried potatoes (below right) and fresh fish cooked on a camping stove.

That trip was a graduation gift we gave ourselves and although certain details of the outing are blurred by time I remember it with pleasure. Since then I've taken numerous overnight canoe trips with my father and friends on the same kinds of rivers and large streams that most of us have within a reasonable driving distance from our homes. Overnight canoe trips are a convenient and free source of outdoor fun for nearly everyone, including you.

If you enjoy the outdoors and yearn to see new places, you needn't spend hard earned dollars traveling to distant destinations. Bob and I discovered on our canoe trip that there were interesting sights around nearly every bend

in the creek. The float introduced us to places we never knew existed, and we felt as if we were exploring a wilderness waterway. It seemed impossible that Harrisburg, the state capital, was a beehive of activity within a short drive.

The possibility that you, too, can capitalize on the outdoor adventure an overnight canoe trip offers depends largely on your canoeing and camping ability. You need not be an expert in these outdoor skills but be willing to learn from experience. There are, however, some important steps to take now to prepare yourself for canoe camping.

Become Mentally Prepared

Remember that once your canoe adventure begins you become self-sufficient—your own boss so to speak. That is a good feeling, but it means you must rely on your own planning, wits and outdoor know-how to live comfortably and solve any problems that arise. As your own supervisor, you are responsible for your safety. I learned years ago that the outdoors is no place to be foolhardy and although canoe camping is a safe activity a person who takes unnecessary risks asks for trouble.

Respect water; it can claim your life. If you aren't a strong swimmer wear a life preserver and always take one for both yourself and your companion. And unless you are experienced at canoeing swift water, you should select a fairly quiet, slow-moving river or stream to float.

If you need assistance in locating a suitable waterway, contact the state fish commission's officer in your county for advice. He'll know if a particular river has dams or hazardous swift water that you should know about. He may also provide maps of boating accesses on rivers in your area.

By studying a good road map in conjunction with one from the fish commission you can decide where to begin and end your canoe trip. Since you may take time to fish while you float, and stop occasionally to stretch beneath a shade tree, you'll find that a good destination is one that you can reach without rushing. But if your goal is to travel as much distance as possible, your destination must be selected accordingly.

When Bob and I floated the Conodoguinet, my mother drove us to the creek with our canoe and gear one morning and agreed to meet us the following evening at the confluence of the creek and the Susquehanna River. The other way to handle transportation is to use two vehicles. Both campers drive a car to where the trip will end. One vehicle is parked there while both campers take the second vehicle to the launching point. That way when the float ends a vehicle waits at your destination.

Selecting a river to float and arranging for transportation are done at home during the planning stages when you also ready your equipment and plan menus. These preparations should be completed carefully since, to a large degree, they will spell success or failure for your outing.

Getting a Canoe

You must, of course, have access to a canoe. If your family doesn't own one or one can't be borrowed, chances are a marina or rental agency in your area can provide one.

Back in the early 1800's when fur trappers in the remote Canadian Northwest provided pelts for a hungry fur market, the fur companies sent sturdy French Canadian voyagers on 3,000-mile canoe trips into the wilderness to bring back the furs. These adventurous canoemen, dressed in moccasins, leather leggings and a red cap with a feather, paddled huge 36-foot Montreal canoes as well as smaller ones. Their canoes were constructed to carry loads considerably heavier than the gear you'll need.

I recommend you use a 15- to 17-foot aluminum or fiber glass canoe. A wooden canoe can also be used, but it can be damaged more easily should you hit rocks or logs while canoeing, or drop it while loading or unloading it from the vehicle.

Regardless of whose canoe you use be sure to inspect it for damage or shoddy repairs. Don't take it if it appears undependable. Also check the paddles for damage and replace any that is split.

You are now outfitted with a unique watercraft, one that will carry you silently along your route. Unfortunately, some people are skeptical about canoes—afraid they will capsize. Years ago canoes were tippy, but not today. Modern design has made the canoe considerably more stable and practically unsinkable. You should have no prob-

lems if you observe some basic rules.

Basic Rules

First, don't overload the canoe. A plate is attached to many canoes giving their weight capacity. Keeping the weight limit in mind, load the heaviest gear on the bottom of the middle of the canoe between the thwarts. Your load should be centered to maintain balance. Then cover the gear with a waterproof cover to protect it.

Your gear must provide food, clothing and shelter, including a sleeping bag and an air mattress. Keep the meals simple, putting perishables in an ice chest. If you're a fisherman consider having a fish fry. I enjoy cooking over an open fire, but I take a small propane stove which is faster, cleaner, and dependable in wet weather.

Few extra clothes are needed for summer or autumn canoe trips. A hat is handy to avoid a sunburned face and sunglasses will protect your eyes from glare.

A two-man pup tent is fine for warm weather camping. Or on a nice night you may want to simply sleep under the stars. In either case, the sleeping bag and air mattress will ensure a comfortable night's rest.

Paddling a canoe is easy if you know the fundamentals. If you don't, I suggest you practice them prior to taking the canoe trip. With a little experience you can master the important J-stroke which will keep the canoe on an even course with little effort. Here again, the fish commission officer could probably assist you.

Bob and I were partially tanned and had a stringer of fish for breakfast when our canoe trip ended after two memorable days. We'd seen plenty of wildlife and scenery worthy of an artist's attention. I concluded that summer canoe camping was a passport to adventure practically right in my own back yard. It can be your passport, too.

For safety and companionship, an overnight canoe trip should include two people.





Jerky Jogs Outdoor Appetites

By Lloyd J. Linford

SEASONED outdoorsmen are not surprised to find jerky, that nutritious hand-me-down from pioneer-day diets, enjoying revived popularity these days as an appetizer and handy snack food. It is one of those gastronomical gems that was simply too good to stay buried in the past.

When this country was young and grub was wherever a man could find it, beef, deer and other meats were jerked all the way from the Atlantic to the Pacific by hearty men who chewed while they conquered. Where available, jerked buffalo was a favorite, too, and for a time fueled more frontier energies than any other food.

The Indians, who developed the art of preserving meat by curing and drying it in the sun, were not as concerned about the kind of meat they jerked as its availability and they obligingly revealed their secrets to the white man. Jerky proved highly portable, durable and nourishing and could be eaten on the run with no fuss or muss, which made it a staple in the frontier diet and a prized item of early commerce.

These same attributes make jerky a handy answer to nourishment problems today, be it on the trail, in the backyard or in front of the TV set. Sportsmen, legislators, soldiers, kids and just plain folks out for a good time agree that jerky makes a good chew. Even planet-hopping astronauts have found it so, on their journeys "up there."

Jerky is available commercially these

days in most food stores and annual sales run into the millions. Try some. And, if your pulse quickens to the challenge of making your own, welcome to the club.

Seasoned do-it-yourselfers often have their own secret formulas for coming up with just the right blend of tooth-tension and taste delight. Some try the sun-drying method, with good results. However, it is recommended that the novice, who tackles jerky making for the first time, follow these simple procedures.

How to Make Jerky

First, select the cuts of beef (or venison, if you have some) to be used as jerky. The fact that meat may have been frozen makes no difference. In fact, lightly frozen meat is easier to cut and prepare.

Flank or round steak are the preferred cuts. Just be sure it is very lean. Then trim away all bits of fat and gristle, for these become rancid and spoil the finished product. That's why some of the more fancy cuts of well-marbled meat will not do. Keep it lean.

After you have trimmed the meat, cut it into strips of five or six inches in length, or more if possible, and about one-quarter inch thickness. Cut across the grain of the meat for crisp jerky and with the grain for chewy jerky.

Place a layer of meat strips into a bowl or dish, sprinkle lightly with hickory smoked salt and, if you like, add a

touch of garlic or onion salt for flavoring. Then a second layer goes over the first, salt and season as before and repeat until you have treated all the meat you aim to convert into jerky.

Next, cover the dish and place in your refrigerator overnight, or for at least eight hours. This gives the salt and seasoning time to permeate and flavor the meat.

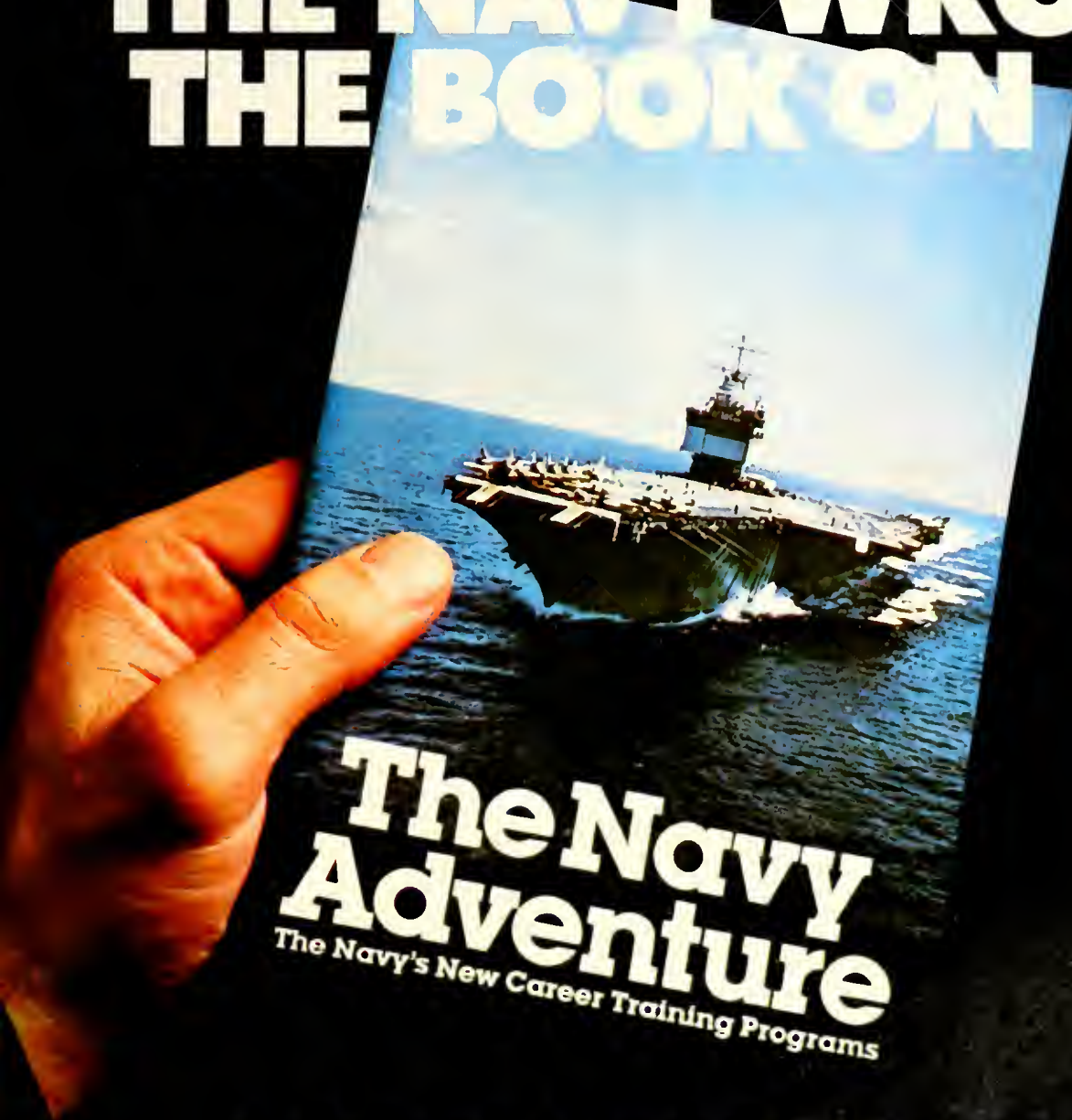
Next morning, drain and pat strips dry with paper toweling. Arrange individual strips on a rack in a shallow baking pan or on a cookie sheet, with space between them. Then pop them into the oven at a very low heat—150 to 175 degrees—for four to five hours. Check periodically for desired dryness—less time for chewy jerky and more time for the brittle kind.

This slow, steady heat only dehydrates the meat by removing all moisture. The meat shrivels and shrinks, as it's supposed to do and will be almost black in color.

When it cools, your jerky is ready to eat. Stored tightly in covered jars, it will keep a long time. On field trips, carry some with you in plastic bags or wrapped in foil to keep out moisture. Chew it on schedule as major fare, or at random to ward off hunger.

You'll find jerky to be good old-fashioned fare that adds an authentic touch of frontier gastronomy to any outdoor venture. Have plenty on hand for your next time out and share a hearty chew with friends.

ADVENTURE? THE NAVY WROTE THE BOOK ON IT.



AND IT'S FREE.

You're looking at one of the greatest adventure books ever written. A book filled with the adventure of training and education, of space age equipment, the adventure of the sea, and of exotic lands.

And the best thing about it is it's free.

Send for it today; there's no obligation. Except that when you finish reading it, you might feel like writing the next chapter.

NAVY.
IT'S NOT JUST A JOB, IT'S AN ADVENTURE.

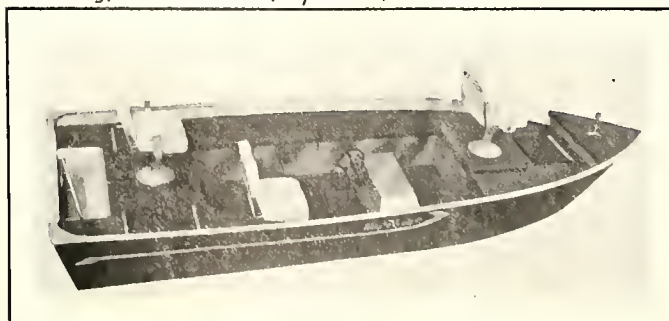


Two new boats, the 3.8 and the 4.4, are available this year from Grumman. Tipping the scales at 170 pounds, the 3.8 top will carry 614 pounds of people, gear and motor within its 3.8 meter length and 54-inch beam. The 4.4, named also for its length, is capable of hauling 877 pounds with a 25 h.p. motor. Grumman Boats, Marathon, NY 13083.



A fast way to put a superior edge on your knives almost anywhere is the Honesteel. It requires no oil or wetting agent and has a saddle-leather sheath. Schrade Cutlery, Inc., 17776 Broadway, NY 10019.

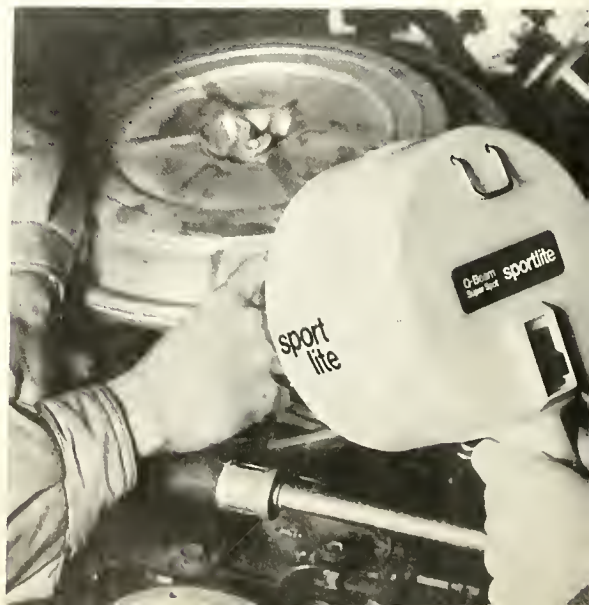
The "Fishing Machine", an aluminum outboard boat for anglers from Sea Nymph, has two large aerated livewells with valve controls, a storage locker over 7 feet long and a large bow deck for a trolling motor. Total boat weight is 570 pounds; length is 16 feet, 1 inch. Sea Nymph Manufacturing, P.O. Box 298, Syracuse, IN 46567.



This new "Sportsman Smoker" is said to make eating the catch as pleasurable as bagging it. The charcoal-fueled cooker prepares your meal with a self-basting process of indirect cooking and smoking. It also instantly converts to a standard grill. Brinkmann Corp., 4215 McEwen Road, Dallas, TX 75240.

FOR LIFE IN THE GREAT OUTDOORS

Q-Beam's 200,000 candlepower Super Spot 12-Volt Sport Lite is powerful enough to illuminate objects over one mile away. Available with either an 8-foot coil or 15-foot straight cord and cigarette lighter plug, it has a sealed beam rugged plastic housing. Q-Beam, 4215 McEwen Road, Dallas, TX 75240.



50 Years of "Future Farming"

By Daniel B. Dunham

ONCE a Future Farmer—always one!

For me, that experience began 27 years ago as a 14-year-old Greenhand in Lakeview, Oregon. The experience has been continuing, lasting and profoundly influential on my life and the lives of those close to me.

I was here at the National Convention 25 years ago—at FFA's Silver Anniversary—as a chapter delegate. Somehow, I knew then it would not be my last trip to Kansas City! The goals of American Farmer and National Officer were firmly set as a part of me by the time the "Portland Rose" pulled out of Union Station and headed northwest.

In the years since those spent as an active FFA member, I have come to recognize what is, for me at least, the essence of "Future Farming." That essence is found in a *variety of experiences; the development and practice of useful skills, positive relationships with people and perhaps above all, in a distinct and sharpened consciousness of who I am as a person.* It is a matter of self-awareness, of recognition of weaknesses as well as strengths, of knowing our limits and of having a clear view and balanced perspective of our potentials.

The early experiences of "future farming" can become the basic building pieces for successful and effective adulthood. Those early activities develop and test our citizenship, leadership, cooperation, self-reliance and ability to live and work effectively with other people. They become the continuing life skills we need to effectively play out the several adult roles that span a lifetime of living. Those include our roles as consumer, citizen, family member, worker, user of disposable (leisure) time, personal and individual roles and perhaps more importantly, the role of life-long learner.

For me, there have been no set of experiences which have so profoundly affected the way in which I have tried to shape my life than those based in and upon the FFA. And because the experience, taken as a whole, was so pro-



Dan Dunham as National President
"The jacket still fits."

Dan Dunham was president of the Oregon Association of FFA in 1954-55 and National FFA President in 1955-56. He operated a ranch in southeastern Oregon jointly with his parents until 1958. Dr. Dunham taught vocational agriculture for six years at Central-Linn, Drain and Lebanon High Schools in Oregon from 1962-68. Two of his former students currently teach vo-ag in Oregon. He was a local director of vocational education, a teacher educator, state vocational education research director and assistant state director of Career and Vocational Education in Oregon prior to moving to Maryland in September, 1975, to become state director of Vocational-Technical Education. Dr. Dunham resides in Ellicott City, Maryland, with his wife Susan and children Jan 18, Becki, 15 and David, 12.

found in its influence I have tended to behave in a continuous way through early and middle adulthood very much in response to those qualities which a Future Farmer should possess.

You see, I will always consider myself a Future Farmer because I personally believe in and continue to subscribe to the essence of what it means to be a Future Farmer. Being a Future Farmer is more than a passing event in the human experience. It is being a person who respects life, first of all, and the

right of each person to live her or his life in the way chosen. It means respect for freedom—for all of our freedoms—and the responsibility to defend freedom and represent freedom in the way we each live our lives. It means achievement, to respond productively to the basic requirements of effective living through learning and work—and to achieve our maximum individual potentials in each effort undertaken. It means developing and using good sense to make choices, judgements and decisions about who we are, what we will become and how the accomplishment of that will affect others. It means caring for others as well as for ourselves; to be sensitive, kind and giving; to say "thank you" and mean it; to say "may I help you?" instead of "what do you want?"

Finally, and perhaps, ultimately, being a Future Farmer means being yourself first, knowing clearly and without question who you are.

"Future Farming" then is the business of being a person who is aware of self, confident, regularly fulfilled in purpose, achievement and productivity oriented, caring, sharing and real. All of these, and more.

Let yourself be caught up in the dynamic condition of being a Future Farmer. Let the spirit and the essence of being a real person embrace you. And too, let the spirit of your own God touch you often and give you a sense of purpose and belonging.

As one of you and one who is caught up in the spirit of "Future Farming" and who would represent to you a personal sense of what it is to be so then, now, and for my remaining years, I am a Future Farmer.

You see, I brought something with me that has been and still is a symbol of much of what I have tried to share with you. (After removing his suit coat and putting on his 22-year-old FFA jacket, Dr. Dunham said:)

I was proud to wear it then and perhaps even more proud now, because it is a continuing reminder of the essence and the spirit of the FFA.

Wear your jacket proudly—and with respect—for it symbolizes you, your organization and most importantly what it means to say "I am a Future Farmer."

OFFICIAL FFA CALENDARS

1979 edition

Beware of the 1979 "Letdown" in FFA!

Last year FFA members in chapters everywhere, state associations and even the National Organization staff office began the biggest celebration this organization has ever known, to celebrate the Golden Anniversary.

There's no Bicentennial or Golden Anniversary so it could be easy to relax or "let down" in '79 and think - nothing to do in PR. But the fact remains that those who DO promote their successful FFA chapters and the strong program of vocational agriculture education will gain more community support, school administration support, attract good new students and build more enthusiasm among members.

One public relations program, OFFICIAL FFA CALENDARS, will help you get a jump on the public relations job. The '79 Official FFA Calendars promote vo-ag and FFA in your community...and a note from your chapter advisor will bring you the complete set of sample calendars, order forms and further details. The Kit is free.

There are FIVE styles of Official Calendars. The vinyl Wallet calendar which doubles as a chapter calling card. The popular Home and Office style with 12 different color pictures. Plus the Desk style and large Poster style. And NEW for '79 is the transparent Watch Crystal style - 12 monthly calendars to peel off a card and put right over the watch face.

There are three different ways chapters may use this program including a plan that won't cost the chapter. And fund raising options are available.

Here's how FFA Calendars will get favorable public awareness for FFA.

1. Your chapter can express appreciation to business or agricultural leaders in your area who have been helpful by saying Thank You on calendars and distributing them.
2. Officers of your chapter can spark enthusiasm of members by involving them in distributing the calendars. Plus being sure every member of his family has Official Calendars.
3. Your FFA can improve the chapter's relationship with the banker, town council, faculty, parents or any other segment of the public by getting Official FFA Calendars hanging in the area.

To take advantage of this PR program, send a note to the Calendar Department asking for a FREE SAMPLE KIT which includes an explanation of how the program works. The order forms are easy to follow - any of the members can easily start the ball rolling. No payment until after delivery. (To the many chapters already using these Official FFA Calendars - you will receive your '79 information and reorder details automatically.)

And do it with this guarantee: That you may expect the high quality calendars to become a popular item in your area. The sooner you mail your request, the quicker you can get in an order and avoid a publicity "letdown" for FFA in your community.



FFA at 50

Calendar Department, P.O. Box 15130, Alexandria, Virginia 22309, 703/360-3600



IN ACTION

ICE FISHING FOR PUBLICITY

One hundred fifteen fishermen took part in the seventh annual Ice Fishing Derby held by the Cazenovia Aggies, New York, FFA Chapter as part of the Cazenovia winter festival.

Competing for the longest perch, pickerel and walleye, the fisherman caught many perch, numerous pickerel but were shut out by the walleye.

Starting at 7:00 a.m., the fishermen paid their \$1 fee and competed for trophies and cash prizes. By 4:00 p.m. they had brought their longest fish to the official measurer, Carol Wright, state FFA secretary.

The trophies used are wooden plaques made by the conservation class in the form of a fish. The fishing derby is fun, good public relations and in a good year, it is profitable. (*Don Burdin, Reporter*)

PLANT SCOUTS

The freshman and the sophomore plant science classes at Fremont, Ohio, vo-ag program began at the beginning of the school year to learn more about agriculture crops not native to north central Ohio.

Members of the class wrote to other chapters across the United States and

received pamphlets, samples and letters about crops such as rice, coconut, pineapples, tobacco and flax.

They used the World Atlas to find areas in the states where crops were grown, then got the addresses of chapters in the area from the 1977 *Agriculture Teachers Directory*. (*Tammy Heins, Assistant Reporter*)

PROVIDING HELPING HANDS

Janesville-Parker, Wisconsin, FFA members have become very active in reaching out and lending a helping hand to the elderly and handicapped.

A favorite among young and old is bingo. Every month 15 FFA'ers travel to Janesville's Rock Haven Mental Health Hospital to read the letters and numbers to about 30 patients. Both the elderly and FFA members have a heart-warming experience sharing ideas with one another.

On the same night, just prior to bingo, a few students sell fresh fruit. About 50 patients at the health center buy bananas, apples, oranges, and grapefruit. The fresh fruit is sold wholesale with Sentry Food Store providing the fruit. Parker FFA members are, therefore, mainly transporting agents.

The people at Rock Haven have

few or no relatives so when Parker FFA members deliver handmade greeting cards, it brightens their day.

The chapter also deals with other people in the community. A new project this year is "Snow, Leaf and Lawn." What the members have done is to organize a committee that takes phone calls from the elderly and handicapped in Janesville. Depending upon the season a student is sent to the residence to either shovel snow, rake leaves or mow the lawn. There is no charge, but donations are accepted.

Another highly successful project is the tour given for students from The School for the Visually Handicapped. "The youngsters are taken through our gardens and orchards. They are given a chance to touch, taste and smell the apples in the orchard. They are given a chance to operate the spraying equipment and the apple washer in the ag room. These kids are thrilled to explore the world that we take for granted."

In the month of September, Parker FFA turns its attention to the Muscular Dystrophy fund-raising drive. A couple volunteers are asked to operate phones to collect donations during the Muscular Dystrophy Telethon.

(*More ACTION on Page 54*)

ANNIVERSARY ACTION

TRACTOR PROMOTION FOR FFA

When the Greenville, Ohio, FFA celebrated the 50th Anniversary of the National Organization, they presented an anniversary flag to the school, displayed past FFA scrapbooks and one day 11 members drove their tractors to school.

Photo by the Dayton Daily News



(Pick up the ACTION from Page 53)

Considerably more is done for the Janesville Big Brother program. The Parker FFA Chapter has donated over \$500 in the last two years to the Big Brothers program through the sale of candy bars. All the money earned from these sales went to the Big Brothers.

Finally, when Janesville community has its bike ride fund raiser for the retarded, they call on FFA members to help out. A truck is sent out and the FFA'ers travel the bike route in search of cyclists whose bikes have broken down. The bicycles are fixed, if possible, or else loaded up and carted back home for the cyclists.

The Parker FFA BOAC committee has developed a well-organized program with the ultimate objective of helping to provide a little better quality life for Janesville's less fortunate citizens. (David Abb and David Hanson)

FACTS FOR ACTION

Here are some of the basic facts (published by the Agriculture Council of America) to use in speeches, in talking with your non-farming friends, whenever you can—to tell to those who might not know about:

The nation's number one industry—Agriculture's assets total \$671 billion; equal to 75 per cent of the capital assets of all manufacturing corporations in the United States.

The nation's largest employer—Some 14 to 17 million people work in some phase of agriculture—from growing food and fiber to selling it at the supermarket. Services of an approximate 8 to 10 million people are required to store, transport, process and merchandise the output of the nation's farms. That's one out of every five jobs in private enterprise.

Agriculture production, carried on by 2.8 million farms, provides food and fiber for our domestic population (about 220 million) as well as exporting more than any other nation in the world. With less than 7 percent of the earth's land, the United States produces 46 percent of the world's corn and 66 percent of the world's soybeans. We supply 44 percent of the world's total wheat exports and 55 percent of the world's coarse grain exports. The production from one cropland acre out of every 3.5 goes overseas. Farm exports contributed a net of \$12 billion to our balance of trade in 1976, making possible foreign imports, like petroleum and televisions.



DANCIN' FEVER

For the past two years the 40 members of the Mead, Nebraska, Chapter have held a Muscular Dystrophy Dance Marathon. The marathon goes for 14 hours from 10 a.m. to 12 midnight on one Saturday a year. The Mead Chapter raised over \$2,800 last year.

This year's dance was held on March 18 and earned in excess of \$3,200.

Mead Chapter President Mark Poeschl and Reporter David Campbell have received regional television coverage for the Mead marathon efforts. In addition to an appearance on the Jerry Lewis Labor Day Telethon, the Mead Chapter had the pleasure of having a regional radio disc jockey come to the dance this year. Gary Patton of WOW radio station in Omaha, Nebraska, ran the disco dance for four hours and gave extensive live coverage over the air. (David Campbell, Reporter)

Dance marathon participants put some "extra action" into their routines. The event was financially successful for Muscular Dystrophy and involved a large crowd of dancers and observers from the Mead School. Below, DJ Gary Patton, left, and President Mark Poeschl operate the disco equipment for their dance marathon.



EVERYTHING BUT THE SQUEAL

Sausage sales are becoming an important part of some chapters across the country and the Fremont, Ohio, Chapter is into it, too. They held their second annual whole hog sausage sale in cooperation with the Young Farmers of America in January.

Whole hog means we put the hams, shoulders, bacon and other meat parts of the hog in the sausage and use as much of the hog as possible.

We rendered the fat to lard and also sold the liver, spareribs and country backs (loin).

Our chapter sold \$5,171 worth and earned a profit of \$1,347. Mike Hetrick, our leading salesman for the second year in a row, sold \$725. He received a \$25 bond.

Our hogs were purchased by Advisor Badertscher and area young farmers after a bad snow storm closed the markets on the purchase day. Forty-five members helped process the sausage at Hasselback's Meats, who let us use their

facilities and equipment for our project.

Mr. Hasselback was a former chapter member who received valuable training on the 1957 meat judging team which ranked second in the state contest. (Dave Thorbahn, Reporter)

HAY DRIVE FOR CAMP NAGS

Last fall the New York FFA Association became owners of four horses for use in the riding program at Oswegatchie Camp and an appeal was made for chapters to furnish feed for the horses.

So, at a Cazenovia Chapter meeting held in October, it was voted to hold a hay drive with Jon Weisbrod, chairman.

A short article appeared in both the local weekly papers, explaining the purposes of the hay drive. The next step was to line up some trucks and to assign areas for the collections.

The pickup crews had great success and by noon 241 bales of hay had been collected and stored in the ag shop. In the next few weeks three trips were made to Fort Plain, where the horses were kept and a successful project came to a close. *(Don Burdin, Reporter)*

LEADERSHIP HOSTS

The conference was held in conjunction with National FFA WEEK and incorporated the anniversary theme.

SPREADING LEADERSHIP SKILLS

Seventeen chapters registered to participate in the all-day conference program. These FFA members were from the following chapters: Albion, Blackhawk, Butler Area, Commodore Peary, Curwensville, Fort LeBeouf, General MacLane, Knoch, Lakeview, Mercer, Mohawk, Redbank Valley, Reynolds, Union, Moniteau and Wilmington. One of the major activities during the morning hours was a complete tour of the Rolling Acres Farm Dairy owned by Mr. William Beatty and home of Mike



June-July, 1978

Mr. Henry Schriver, from Ohio, provided the entertainment for the evening with his farmer-philosopher gift of gab.

NATIONAL OFFICER COOKOUT

Afterward, everybody teamed up with the national officers and played basketball. (Kim Klotz, Reporter)

FUN IN THE SNOW

Also during the carnival, the Pinedale

All the trophies for the FFA sponsored events were made by chapter members in their new vocational agriculture shop. This was the third year the FFA has sponsored carnival events.

THEY MADE THEIR OWN BILLBOARD

A major activity for celebrating the Golden Anniversary was the unveiling of a member-designed billboard for Greenfield, Indiana, FFA. One of the member's parents works for a large advertising firm. We designed the billboard and then their art department enlarged the work and lettering to billboard size. They sent it back and we painted the design on white paper. (J. W. McCain, Advisor)

[illegible]

- Say "Thanks" to your vo-ag instructor.
- Keep a diary.
- Visit a member who's into a different agricareer than you.
- Get yourself a decent camera.
- Take a picture of the car or pickup you're driving now.
- Start a scrapbook.
- Talk your Dad into getting a physical exam.
- You fill the tank with gas!
- Try mushroom on your pizza.
- Convince someone to quit smoking.
- Volunteer to clean up the shop.
- Plant some bright red or yellow flowers along the walk or curb.
- Learn to play the banjo.
- Get the facts about cancer symptoms.
- Ride a paddle wheeler downriver.
- Visit at someone's farm you don't know.
- Plant some Indian corn and give it to people for fall decoration.
- Take a Frisbee along on the trip.
- Accidentally leave FFA pencils in various classrooms and offices. It's your own PR campaign.
- Put an FFA decal on your pickup.
- Tell your friend to drive slower.
- Be a pal to a new Greenhand.
- Send in a joke that's *really* funny to the FFA magazine!
- Read *The FFA at 50* history book.
- Start a noon-time Monopoly marathon.

(More ACTION on Page 56)

FFA **IN ACTION**

(Pick up the ACTION from Page 55)

ANNIVERSARY ACTION

SUPERSTARS IN FFA.

The FFA chapters in Muskogee County, Oklahoma, organized an FFA Superstars Contest during National FFA WEEK to celebrate the big 50th Anniversary. The rules and event were decided at a meeting for chapter officers and advisors last fall.

A local radio disc jockey served as the announcer and the Muskogee County Cattleman's Association served as officials for the event.

The competition consisted of ag-related skills which consisted of wild cow milking, greased pig chase, pony express ride, hog calling contest, cow chip throwing contest, ag teachers vs. chapter presidents in a tug of war, chicken dressing (chickens were caught and dressed in pants, bonnets and bow ties), chapters against chapters in a tug of war, ribbon roping, hay pitching and goat tying.

The conclusion of the contest consisted of an obstacle course which included wood sawing, carrying an egg in a spoon, fish plug casting, barrel walking, spike nail driving and a sack race.

After the results were totaled and trophies were presented to the top three chapters, all members and advisors devoured a 3-foot by 4-foot 50th Anniversary FFA cake.

KTUL and KOTV television stations in Tulsa filmed the event. Chapters participating were Muskogee, who hosted the event, Boynton, Ft. Gibson, Oktaha, Webbers Falls, Haskell and Warner. Approximately 1,400 people attended the exciting event.

The response was so good from the

farmers, businessmen, parents and FFA members that plans are being made to hold this activity annually.



Two chapter superstars went after the critter in the goat tying competition.



Mark Fain puts forth all of his effort in the cow chip throwing competition.

John Raney and John Tadlock "dressed" this chicken for the FFA Anniversary.



ANNIVERSARY ACTION

Toot your own horn! Brag a little. It's your turn to do the talking.

What is your chapter doing to celebrate the 50th Anniversary of FFA? Since 1928 the national organization has been putting it all together for state associations and chapters. Hopefully chapter leaders have already kicked off celebration activities or have some in their planned program for 1978. (If not, there's still lots of time to start.)

So brag a little. Share your nifty ideas. Send a newspaper clipping or a sample program or a photograph. Maybe the mayor's proclamation or a letter from the town council.

Several items identified with ANNIVERSARY ACTION subtitles in this section tell about celebration activities sent by chapters.

ALMOST ANYTHING GOES

In an effort to "fire up" the FFA members in their area, the Marshall, Michigan, Chapter decided to hold an "Almost Anything Goes" invitational. Inviting four area chapters, the Marshallites began the evening with the ever-popular tricycle race. This contest requires only a child's tricycle and legs short enough to feverishly pedal and yet not cause a major spill. (At least the song "Short People" has been proven wrong . . . short people do have a reason to live—if only to ride in tricycle races.)

Spectators cheered from the stands as the second event rolled into action—the egg roll. The contestants rolled their unpredictable hard boiled eggs toward the finish line. However, they were only allowed to use their noses.

Next came the "ever-tricky-sticky" life-saver pass. Equipped with toothpicks, a team of ten from each chapter passed a life-saver down the line. Sounds easy? Not necessarily so! Each member's toothpick protruded from their mouth in hopes of gaining control of the awesome little candy. Slowly the life-saver moved from pick to pick down the line and a winning chapter emerged.

The evening would have been almost incomplete without the pie eating contest. Chocolate cream was the main course. Each participant used their animal instincts to dive head-first into the rich cream. They slurped to the grand finale, licking clean the pie tin.

The final event included more FFA'ers than any previous contest. Two chapters faced each other in a daring attempt to win the tug of war. Faces contorted with great strain of the event. Long seconds ticked away until one team finally gave in, leaving an exhausted winner.

(More ACTION on Page 60)

WE'LL SEND YOU TO SCHOOL FULL-TIME TO LEARN A PART-TIME JOB.

The Army Reserve is a special kind of part-time job. So we train you for it in a special way. By sending you to full-time Army schools where you can learn automotive mechanics, communications, or any one of a variety of skills.

You'll be taught by first-rate instructors using the most modern teaching methods. And you'll earn full Army pay for the months you're away at basic training and school.

Back home, you'll work 16 hours a month (usually one weekend), and two full weeks a year, with your local Army Reserve unit. Sharpening your skill with valuable, on-the-job experience. Earning a good part-time income. And a good full-time feeling. It's called pride. For more information send the postcard or call 800-431-1234 toll free. In NY call 800-243-6370.

THE ARMY RESERVE. PART OF WHAT YOU EARN IS PRIDE.



(Pick up the ACTION from Page 56)

Union City, Michigan, emerged the overall winner of an exciting "Almost Anything Goes" invitational. They were awarded a handsome plaque by their Marshall hosts.

All the FFA'ers were served hot dogs, soft drinks and potato chips following their strenuous activities.

Next year Marshall's FFA Chapter will host another "Almost Anything Goes" but is planning to invite even more area chapters for a night of fun. (Margie Kipp, Treasurer)

STOCK TRAILER SLEEPS SIXTEEN

In May of last year, the Tahoka FFA Chapter in Texas held its chapter banquet. Parents and members were invited for the cafeteria style barbeque. A slave sale was held, FFA members being the slaves. Parents, most of them being farmers, participated very generously. We came out that night with about \$5,000, but this money was already spent. We had planned to build our own stock trailer to carry to shows.

This one, however, has a new twist. There are sleeping quarters built up front.

The trailer is a gooseneck, 40 feet

long, 8 feet wide, with 22 feet in the sleeping quarters. It has three 7500# axles underneath. In the rear, for the stock, it is double-decked, with the top deck being easily removed for larger animals. Each deck has 16 individual pens.

The sleeping quarters can accommodate 16 people easily. It is insulated and wood paneled on all sides except the floor, which is blue and white indoor-outdoor carpet. On two walls, there are three rows of bunks vertically, two bunks long. A stereo is mounted on the back wall, which helps to ease things along.

Many hours and the combined individual effort of area farmers, business-

TAKE HEED; TAKE ACTION

By Tony Wyatt

I have never written a letter to the magazine before, but FFA is very important to me. I'm the president of the Bracken County Chapter in Kentucky and proud to be a part of the FFA.

I had an experience this past summer which has been on my mind ever since. I would like to share it with others. I hope it will benefit someone else. I'm embarrassed to admit my carelessness in the matter, but to help someone would be worth the embarrassment.

On July 20 I was feeling full of energy and ambition. I had just returned home from a two-week exchange trip to North Dakota.

While I was gone the army worms invaded the tobacco fields. My crop didn't have many, but once started they could destroy a field fast. My crop had been topped and was ready to spray for sucker control. We always spray an insecticide at the same time for various insects and worms. This year we needed something more for the army worms. The University of Kentucky recommended two insecticides. One was more poisonous. The dealer from which I buy was out of one. I bought the strongest.

I didn't want to wait to spray or to make two sprayings. I began to spray with a push-type spray. I sprayed the first morning for about three hours. It was very hot and humid. I rested the remainder of the day, due to the heat. I felt a little sick, but thought it was caused by the heat.

The next morning it was looking more like rain. The air was blowing more. I started spraying early. About mid-

morning my head was hurting and I felt sick. I thought it was the heat. I continued to spray until I finished my crop of one and three-fourths acres.

I changed my clothing and showered. I ate a little lunch; then lay down. I was really feeling bad. My parents told me to go to the doctor.

My family doctor was about to leave his office for the day, but said he would wait, when he heard my symptoms.

My parents thought it might be the insecticide. They took the label from the jug. It told the symptoms and antidote. Thank goodness for that.

Neither my family doctor nor the pharmacy had any of the antidote to give intravenously. Doctor did have some tablets. He gave me two and told my parents to get me to the hospital as soon as possible.

By the time I arrived at Dr. Cummins' office my vision was blurred and my head hurt. I was numb. I was sick to my stomach. I was having trouble breathing. After receiving the tablets, I was able to breathe easier. I really don't remember much of the trip to the hospital. It took an hour.

I'm 6 feet tall and weigh 175 pounds. I was still numb. I couldn't walk. My parents said they nearly dragged me into the emergency room. The doctors began working with me.

After they got me feeling better, they said I was really fortunate. They thought perhaps the two tablets that Dr. Cummins gave me may have saved my life. I knew I felt awful, but I didn't realize it was that serious.

I spent the next three days in the coronary care unit at St. Luke Hospital in Fort Thomas, Kentucky. They had to watch me carefully and administer the antidote until my body got rid of the poison.

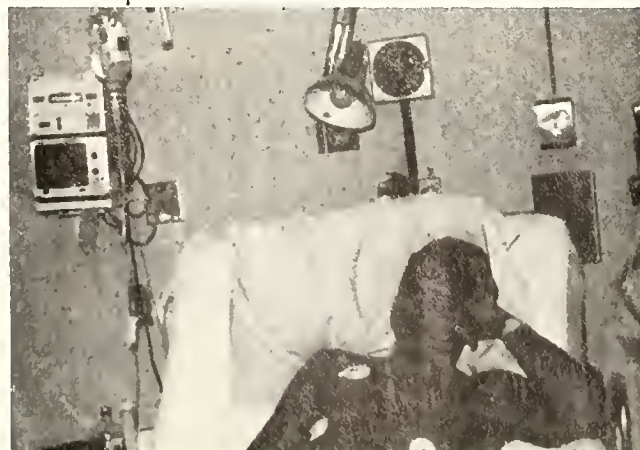
I'm thankful to be here to write this. I would like to encourage everyone to take all precautions in using any insecticides.

We now have the new pesticide controls. I had the training in this, yet I neglected to wear a mask or respirator or protective clothing.

The pesticide class was interesting. I listened closely, but I didn't think anything would happen to me. We had sprayed for years with different things and no problems. When it happens to you, you begin to think seriously about it. From now on, I'll follow the rules and pay close attention to the warnings.

Summer is getting close and spraying time will be here again. I feel that if I can let my fellow FFA members know about the close call I had, perhaps they will be more careful. I can't express strongly enough how important it is to use all precautions and follow directions on the labels.

Tony tells his story so that other FFA members will not have to experience the close call he had with chemicals.



men, the FFA members and ag teachers made it all possible. We are all proud of it. (Terry Bell, Reporter)

HONORARY GREENHAND



Fay Thompson taught vo-ag 34 years at Powell, Wyoming. To honor "Mr. Ag" at his retirement, they gave him an Honorary Greenhand degree. Many of his students are college graduates and now farming in the community.

ANNIVERSARY ACTION

FFA DAY AT THE LEGISLATURE

One hundred and fifty South Dakota state legislators and FFA members attended the first annual Legislative Breakfast sponsored by Cenex and GTA in Pierre in celebration of the 50th Anniversary of the South Dakota FFA.

The program featured the state officers and a summary of vocations available in agriculture and agribusiness, a short history of the FFA, an introduction of the guests and an explanation of the materials at each place setting which were the inserts about FFA from the 50th Anniversary issue of *The National FUTURE FARMER* and a map of the school districts where classes in vocational agriculture are currently offered.

State officers visit at the gallery desk of Representative David Laustsen.



FFA members presented a 50th anniversary desk flag set to Governor Richard F. Kneip.

Later that afternoon, both houses passed a resolution officially proclaiming January 5 "FFA Day at the Legislature," the first time any youth organization in South Dakota has received such an honor. (LeAnn Simon, State Reporter)

WHAT A SHOWMAN

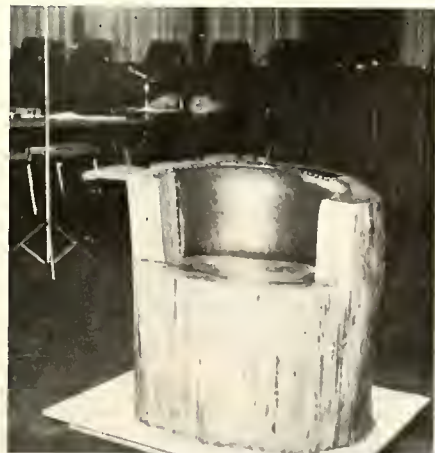
When Rodney Megallen showed his lamb at the 1977 county fair, it was quite an accomplishment for the handicapped FFA'er. He cared for the project lamb by using his wheelchair.



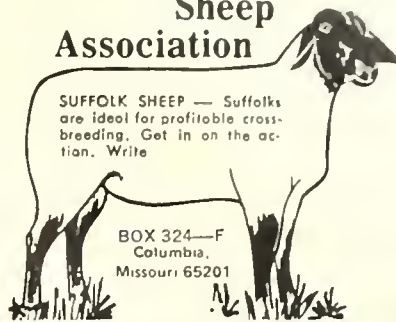
FFA STUMPS FOR GOODE

When Franklin County, Virginia FFA members heard Senator Virgil Goode, Jr., recently arguing against exorbitant furniture accessories for state senators, their ears perked up.

"He said that he would rather have an old tree stump from Franklin County than fancy new furniture, and we just took him at his word," said Advisor Hylton. Students have counted no less than 150 rings in the tree stump they made into a chair, indicating the number of years the tree lived in the area.



National Suffolk Sheep Association



SUFFOLK SHEEP — Suffolks are ideal for profitable cross-breeding. Get in on the action. Write

BOX 324—F
Columbia,
Missouri 65201

CHEVIOTS have what it takes:

- To survive lambing hazards;
- To develop desirable carcass weights on milk and grass alone;
- To import these qualities to less fortunate breeds through crossing.

American Cheviot Sheep Society

Henry Kuykendall, Secretary-Treasurer
RR#2, Lebanon, VA 24266



EVERLOV'IN TOMATO GREENHOUSES BIG RETURNS YEARLY

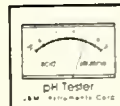
Free information on EVERLOV'IN MARKETING & GROWING greenhouse tomatoes. Our exclusive license and marketing program brings our EVERLOV'IN growers a whopping 66¢ to 79¢ per pound net. Exclusive territories available. Minimum greenhouse investment \$12,000. Fully Secured. No Royalties. Free Training Program—Market assistance. CALL or WRITE now for a business you can own in your area.

CONTACT: Buddy Guest

EVERLOV'IN GREENHOUSES
Rt. 2, Box A-42
Lacey's Spring, Ala. 35754
TEL. 205-883-1800

KNOW YOUR pH FACTOR

Anytime, anywhere, fast. Correct pH in soil and water will release the full benefit of your fertilizers and watering solutions. This high quality electronic pH tester is perfect for testing soil, liquids, etc. Handheld (7 1/4" high), self-powered, needs no batteries. With a little care will last indefinitely. Range: 3.5-9. Accuracy ± or - 2%. Easy instructions and pH guide included. Patented and made in the U.S.A. Guaranteed. \$18.85 postpaid. Allow 2 to 4 weeks for delivery.



A & H Enterprises, Dept. F1,

8325 Dru Ave. SE
Albuquerque, NM 87108

WORK CLOTHES

COVERALLS	SHIRTS and/or PANTS
6 for \$21 OR 12 for \$39	6 for \$14 OR 12 for \$25
WE PAY SHIPPING CHARGES!	
DETAILED \$1.00 (REFUNDED CATALOG WITH 1st ORDER)	
WORKMEN'S GARMENT CO. 15205 WYOMING F DETROIT, MICH. 48230	

1¢ SALE GUARANTEED 10 YEARS



The knife for hunting, fishing and all around use. Mirror polished, imported stainless steel blade honed to a razor's edge. Rugged. Opens with flick of finger.

Locks into position. Blade will not

close when in use. Press button in handle

to close. Safety finger guard. IF BROKEN WITHIN

10 YEARS WE WILL REPLACE AT NO CHARGE! Use 30 days.

Money back if not pleased. Special 1¢ Sale. REGULAR PRICE

\$3.75. Send \$3.76 & receive 2 knives. Add 22¢ postage.

handling. Remit TOTAL \$3.98 for 2 knives. ORDER NOW! Midwest Knife Co., 9043 S. Western Ave., Dept. RS-6536 Chicago, Ill. 60620. Established 1936. Mail Orders Only.



Wise man says: "He who smiles when he makes a mistake has thought of someone to blame it on."

Kevin Krueger
Weidman, Michigan



While meditating in the country, a poet noticed a farmer looking at him curiously, "Ah," said the poet, "perhaps you, too, have seen the golden-red fingers of dawn spreading across the eastern sky, the red-stained sulfurous islets floating in a lake of wine in the West, the ragged clouds at midnight, blotting out the shuddering moon?"

"No," replied the farmer, "not lately. I've been on the wagon for over a year."

Harlan Dengel
Hebron, North Dakota

Q. What is green and red and goes 60 miles per hour?

A: A frog in a blender.

Ralph Bassler
New Windsor, Maryland

At a rural road crossing a truck full of cotton collided with a truck loaded with chickens and it took two hours for the cotton-picking chicken pluckers and the chicken-picking cotton pluckers to clean up the mess.

Oran Nunemaker
Morland, Kansas

Sam: "George, I'm getting worried about my eldest daughter, she drives like lightning."

George: "Does she drive too fast?"

Sam: "No, she keeps striking trees."

Gary Grizzard
Piedmont, Alabama

Debbie: "Were you and your boyfriend playing checkers at the party?"

Lisa: "We weren't."

Debbie: "Then why did I hear you say if he made another move like that, you would crown him?"

Mamie Fullard
Waycross, Georgia

Did you hear about the Broadway producer who is doing a musical version of "A Streetcar Named Desire?" He's calling it "Hello, Trolley."

Lea Ann Fillmore
Waco, Texas

The preacher drove by the farmer's house on Sunday. Seeing the farmer finishing his haying, he said: "Brother Jones, don't you know that the Creator made the world in six days and rested on the seventh?"

"I know," nodded the farmer, glancing at rain clouds hovering overhead, "but he got done and I didn't."

Kathy Schlotzhauer
New Franklin, Missouri

Two dumb guys were walking down the road. One dumb guy said to the other, "Look at that dead bird."

The other guy looks up and shouts, "Where, where?"

Nathaniel Williams
Fairmont, North Carolina

The truck driver drove his 14-foot high vehicle beneath a 12-foot bridge with noisy results, jammed tighter than a boot in a bog. The driver tried reversing his truck. The only result was smoking rubber. Fifteen bystanders tried shoving it to no avail. Finally, a policeman rolled by on his motorcycle. He stared at the 600-yard traffic jam and frowned at the truck driver, "Are you stuck?"

"No, No," seethed the truck driver. "I was delivering this dumb bridge but I lost the address."

Bobbie Mae Cooley
Bowen, Illinois

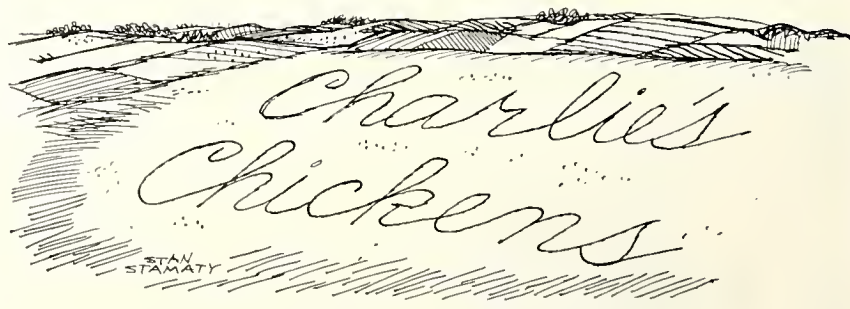
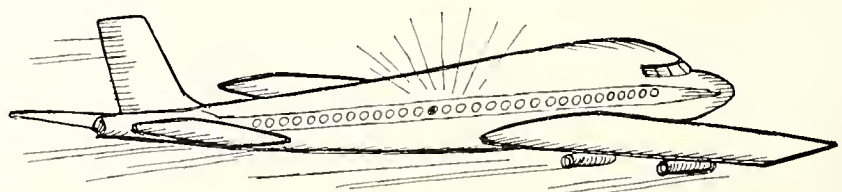
Checker in a super market: "I put your eggs at the bottom of the bag so that if they break, they won't run all over the rest of the groceries."

Ronnie Mriscin
Sorento, Illinois

One day a mother brought some puppies to a classroom and a little boy looked at one through a magnifying glass and when the teacher saw him, he asked why he was doing that and the boy said, "I wanted to see what it would look like when it got bigger."

Lisa Smith
Lake Elmo, Minnesota

Charlie, the Greenhand



"Wait 'til you see it at night, when he opens his jars of lightning bugs!"

Rodeo Favorites

Stock #2054
Suntan Lance Ft.
& Top with a
wider round toe



Stock #6214
Bone Lance Ft. Peanut Brittle Wing
Tip. Matching Belt #26659 and
Buckle #M7050A-X

Stock #5084
Chocolate
Cow Ft. & Top
Matching Belt
#47628 and Buckle
#M7040M



FAMOUS NAMES

Tony★
Lama

FAVORITE BRAND



Recipe: Cut rabbits into serving size pieces; soak young rabbits 1 to 2 hrs. in salt water — 12 to 18 hrs. for older rabbits — 1 tsp. salt per qt. of water; after soaking, wrap meat in damp cloth and store overnight in cold place; butter a casserole dish and add a layer of rabbit pieces; sprinkle with ½ tsp. salt, fresh ground pepper to taste, ½ tsp. ground thyme and 3 large bay leaves; add 5 slices cut bacon; repeat layering until ingredients are used up; pour 1 cup water over casserole, cover and bake at 350° until tender — 1 to 2 hrs. depending on age; remove cover and sprinkle 1 cup seasoned bread crumbs over casserole; bake 30 min. and serve.

THERE'S ONLY ONE WAY TO MAKE SHENANDOAH VALLEY RABBIT CASSEROLE.

THERE'S ONLY ONE WAY TO MAKE A MARLIN.

There are rabbits. And there are rabbits. But there are no rabbits quite like the ones down in Virginia's Shenandoah Valley.

Somehow, they seem a little faster. A little trickier. Whatever the reason, it just makes hunting them, and eating them, all the more gratifying.

Especially when you've got a recipe like Shenandoah Valley Rabbit Casserole. It's easy to prepare. And tastes like no rabbit dish you've ever tried.

But only if you don't skimp on the ingredients. After all, what you get out of

a recipe depends on what you put into it. It's true with cooking. And it's true with guns.

An excellent example of which is the Marlin 99C autoloader. The reason it's one of the finest semi-automatic 22's around is because once we got the ingredients right, we didn't change a thing. Like the 99C's lightning-quick action. It'll let

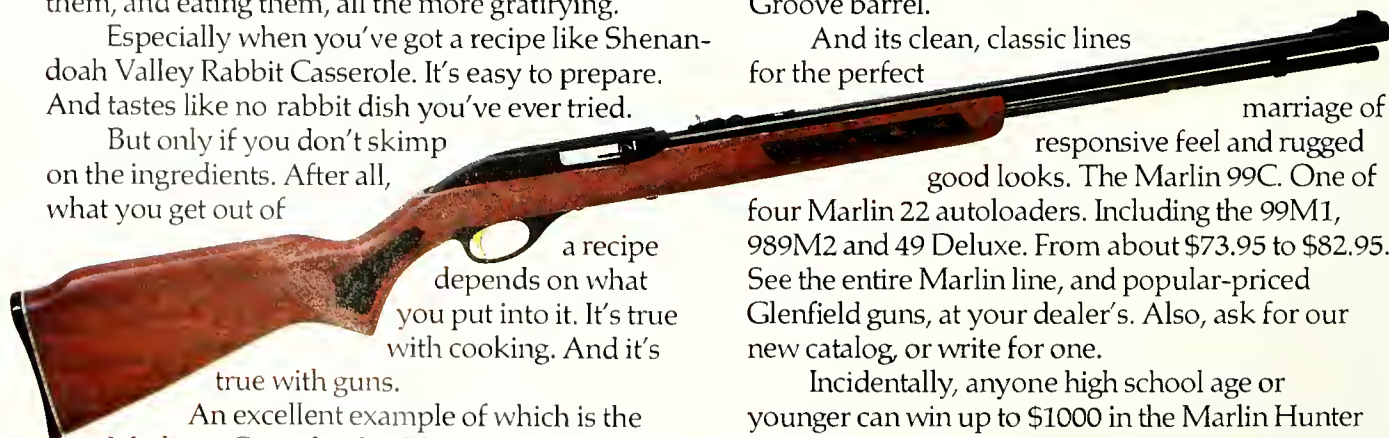
you squeeze off up to eighteen 22 Long Rifle shots as fast as you can pull the trigger.

And its grooved receiver top for scope mounting. Its handsomely checkered, genuine American black walnut Monte Carlo stock. Its 22" Micro-Groove barrel.

And its clean, classic lines for the perfect

marriage of responsive feel and rugged good looks. The Marlin 99C. One of four Marlin 22 autoloaders. Including the 99M1, 989M2 and 49 Deluxe. From about \$73.95 to \$82.95. See the entire Marlin line, and popular-priced Glenfield guns, at your dealer's. Also, ask for our new catalog, or write for one.

Incidentally, anyone high school age or younger can win up to \$1000 in the Marlin Hunter Safety Essay Contest. Students must be enrolled in or have completed a Hunter Safety Course. Write for free entry form. Marlin Firearms Co., North Haven, Connecticut 06473.



Marlin®  **Made now as they were then.**